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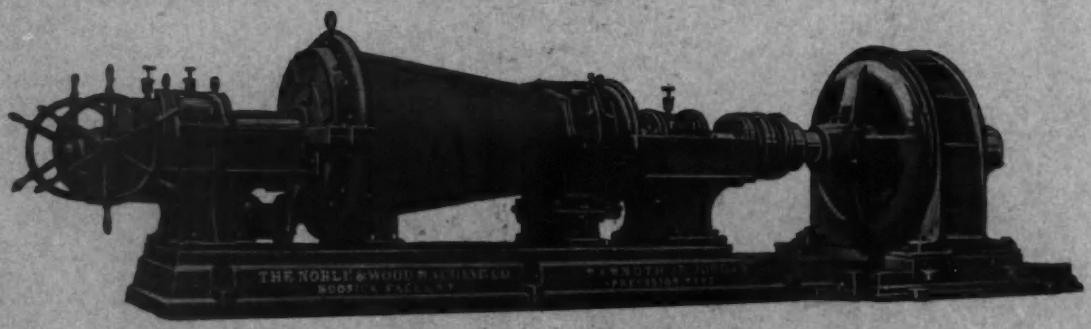

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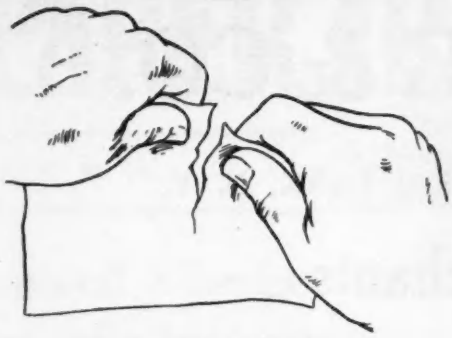

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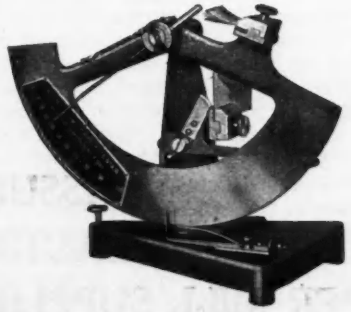

ELMENDORF PAPER TEARING TESTER '63

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-THIRD YEAR

Published Every Thursday by the

LOCKWOOD TRADE JOURNAL CO., INC.

LESLIE R. PALME' PRESIDENT — GEO. S. MACDONALD VICE-PRESIDENT & TREAS — F. K. HOPPIE SECRETARY

10 EAST 39TH ST. N.Y. U. S. A

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PAPER

Vol. LXXX. No. 19 Thursday, May 7, 1925

The Magazine of the Paper Industry

Proposed Change in News Print Definition Discussed

Conference Leaves Domestic Paper Manufacturers, Newspaper Publishers and Importers Standing Exactly Where They Did Before—President S. E. Thomason of The American Newspaper Publishers' Association Urges That Present Definition Be Retained Until Congress Convenes—Henry A. Wise of Import Paper Committee Opposes Such Action.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 6, 1925.—A two hour conference was held yesterday in connection with the proposed change in the Treasury Definition of standard news print paper before Assistant Secretary of the Treasury, Judge McKenzie Moss, at the conclusion of which time domestic paper manufacturers, newspaper publishers' and importers' representatives stood exactly where they were before the conference was held. The outstanding feature of the whole conference was the suggestion made by S. E. Thomason, president of the American Newspaper Publishers' Association that the present definition be allowed to stand until Congress convenes, at which time he said the publishers would put the matter squarely up to Congress as to what it meant by "standard news print paper." Henry A. Wise representing the Import Paper Committee suggested that in the meantime the legitimate paper industry of the country will stand to be severely injured.

Mr. Wise was called upon at the beginning of the Conference by Judge Moss and he told the Judge that the domestic manufacturers practically completed their case at the previous conference and he gave way to Mr. Thomason who presented the publishers' side of the case.

Presents Publishers' Side

Mr. Thomason spoke briefly of the conference which was held recently in New York between the domestic manufacturers and the publishers in an effort to reach an agreement regarding the definition. Mr. Thomason said that the publishers are not opposing the effort of the domestic manufacturers to stop the bootlegging of news print paper. He suggested that a certificate should be signed by importers or publishers that the paper imported is for use in publishing newspapers. Judge Moss did not seem to think that an order of this kind could be satisfactorily promulgated.

Congress, said Mr. Thomason, when it enacted the tariff law, did not expect the newspapers of the country to remain in a static condition and he contended that the news print paper being used today in the United States is of a superior quality to that used in 1922 when the tariff law was promulgated. He spoke particularly of the pictorial development in the daily newspapers of today and stated that for this reason a better finish of news print is needed. He said that some of the newspapers are now using a supercalendared paper for their picture section. He said that as the industry developes better paper will be needed by the publishers and that therefore they must not be tied down by a "narrow definition."

Answering a question from Judge Moss, Mr. Thomason said that the cost of the paper in a newspaper is generally considered to be one-half of the cost of getting out the paper. The publishers, he said, want a reasonable allowance for the development. Mr. Thomason also spoke of the use of sulphate in the manufactured news print instead of sulphite in Canada.

He contended that what he termed the narrow definition of the domestic mills would hamper newspaper development. He said further that such a definition would assume that the news print industry of the United States must remain static. He spoke also of the use of varying weights of news print paper. The publishers must have tolerance in the matter of weight. He said that the publishers are looking now for a better finish of paper and he spoke at some length on the use of clay and the increasing amount of ash content. He contended that 7½ per cent ash content would be reasonable.

Mr. Thomason spoke of the development of paper manufactures from straw and took up particularly the publishing of a London paper on news print made from straw.

Asked for Other Suggestions

Judge Moss asked Mr. Thomason if he had any other suggestions to offer to relieve the situation aside from the one he had offered, that of signing certificates. He said that in the opinion of the publishers any paper used by the newspapers for printing their editions should be considered standard news print paper. He was asked if newspapers should use a similar paper to that used by the *Saturday Evening Post* if he would then have them considered standard news print paper. Mr. Thomason said that if through some invention this paper could be manufactured as cheaply as the present news print paper and it came into common use by the newspapers of the country that it should be considered standard news print paper. Mr. Wise, of course, took issue with him at this point.

Mr. Wise followed Mr. Thomason and in answering him regarding standard news print paper he said that if Mr. Thomason's argument is correct, the paper schedule of the tariff act means nothing and gives no protection at all to the paper industry of the United States. Congress intended, said Mr. Wise, to protect every branch of the paper industry of the United States except news print. He brought out very clearly that the domestic paper manufacturers, in seeking a new definition, do not want to hamper the publishers of the country. He conceded that Congress intended

(*Continued on page* 33)

Montreal Gets Definite Facts About Merger Project

Seven Big Mills When Combined Expect to Be in Position to Compete with International Paper Co.—Federal Government Asserts Rights Over Water Power Development — Price Bros. Co. Makes Satisfactory Financial Statement—St. Lawrence Paper Mills Start Work on New Plant

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., May 5, 1925.—According to current gossip here the proposed merger of the Abitibi Power and Paper Company, the Spanish River Pulp and Paper Company and possibly some other companies whose mills are situated in Ontario, is being negotiated with a view to placing these companies in a position to compete with the International Paper Company which has acquired such extensive interests in the industry in Canada. That the proposed merger is pretty definitely assured is the deduction made from the fact that Sir Herbert Holt has publicly acknowledged that the negotiations are under way. The merger, according to gossip, will include seven big mills with a capacity at the present time of 1635 tons of news print per day. Several of the mills are capable of furthering expansion and in time the daily output will attain to 3,000 tons per day. The mills mentioned as likely to join the merger are the mill of the Backus-Brooks Company at Kenora; the mill owned by the same interests at Fort Frances and known as the Fort Frances Pulp and Paper Company; the Abitibi Power and Paper Company at Iroquois Falls; the three Spanish River mills at Espanola, Sault Ste. Marie and Sturgeon Falls, as well as the mill owned by Fort William Paper Company, which is under control of interests associated with Spanish River. The capacity of each of these mills at present is as follows:—

	Tons per day
Backus-Brooks Company	100
Abitibi Power and Paper	525
Fort Frances Pulp and Paper	150
Fort William Paper Company	160
Spanish River Pulp and Paper	700
	1635

Federal Control of Water Powers

During the past week the Federal Government has asserted its rights over water power development in no uncertain terms. Hon. Dr. King, federal Minister of Public Works, met delegates last week at Ottawa in regard to the question of approving of the plans of the United Manufacturing Company, for the development of a section of the St. Maurice River, and refused the application after hearing the various interests. The application was to obtain approval of plans to build a dam on the St. Maurice River and back the water of that river to a certain extent. Charles Lanctot, K. C., assistant attorney-general of the province of Quebec, when asked on his return to Quebec why the application to Ottawa was necessary, explained that while the ownership of the beds of the river, navigable or not, was vested in the Crown in the province, there is a federal statute to the effect that no work can be constructed in navigable rivers without the authorization of the federal Minister of Public Works, which is only given after plans have been submitted showing the nature of the work to be done, and after reports have been submitted by officers of the department showing the effect of the work on the navigability of the river in question.

Price Bros.' Report Favorable

The financial statement of Price Bros. & Co., just issued for the year 1924, is surprisingly favorable in view of the serious disadvantages under which the company had operated as a result of the landslide that had been followed by the tragic death of the president, Sir William Price. The net profits of the company were down less than 9 per cent. from those of the previous year, and stood at $3,128,000. This was sufficient to meet interest and depreciation charges and also to pay the regular dividends of $853,664 with a surplus of $485,097. The net, therefore, represented slightly over 3 per cent. as compared with 4 per cent., the previous year, or 2.95 per cent., allowing for the accrued dividends on the new 6½ per cent. preferred. An interesting announcement in the report is the definite estimate of the damage to property through the landslide at Kenogami at $1,300,000. The company decided that the current year in bearing the loss in output resulting from the suspension of operations, and the extra cost entailed, was carrying sufficient load, and the cost of restoration will be divided as a write-off over the next three years. What is probably of more significance is the fact that the Kenogami plant is now a self-sustained mill, with a daily capacity of 500 tons and that this and the Jonquiere mill are in full operation. The result should be a considerable increase in gross and net earnings for the company during the present year and a larger net avaiable for common dividend even after allowing for a full year's dividend on the new 6½ per cent. preferred stock. The report is interesting also in its reference to the further extension of the company's capacity at St. Joseph d'Alma plant where construction of a news print mill is well under way and which when completed at the end of the present year, will have a daily capacity of 200 tons. This will increase the capacity of Price Bros. mills to well over 700 tons daily. The report also states that power is being received from the hydro-electric development of the Duke-Price Company at the Grand Discharge.

Adopts Grand Falls Development

The Provincial Legislature of New Brunswick has finally adopted the bill providing a credit of $9,000,000 for the development of Grand Falls. The bill also provides for the reorganization of the New Brunswick Electric Power Commission, and the belief is that when the reorganization takes place Premier Veniot will relinquish the position of Minister of Public Works and combine the duties of chairman of the Hydro Commission with the premiership, thus taking active charge of the development. Meanwhile preparations will be advanced by the Government and the Hydro Commission for the meeting of the International Joint Waterways Commission at Montreal on May 15th, when New Brunswick's application for authority to proceed with the Grand Falls project is to be finally dealt with. The present belief is that before June 15th everything will be in readiness for tenders to be called, and that during July the contracts will be awarded and actual development work started immediately.

St. Lawrence Paper

A despatch from Three Rivers states that St. Lawrence Paper Mills has started to build its new plant which will double the present output. A building permit for $519,000 has been taken out. The despatch says that seventeen new buildings will be added to the plant and that 400 men will be employed when full operations are attained, and that the daily output will be 300 tons. The despatch is somewhat misleading in that it is officially stated that the company has temporarily deferred doubling its news print capacity. The work that is to be proceeded with now is the construction of a sulphite plant capable of producing something over the sulphite pulp requirements of the company. If conditions war-

rant, the news print extension will probably be proceeded with next year.

$30,000,000 News Print Mill

The Newfoundland Power and Paper Company is proceeding with the construction of the news print mill and power development in Newfoundland at a cost of some $30,000,000. They expect to start the production of news print at the rate of about 60 tons per day by the end of June and to have the full quota of 400 tons daily ready for the market by the beginning of 1926. No less than 100,000 h.p. will be developed of which a quantity will be used for other manufacturing purposes. The development work is primarily financed by the British and Newfoundland government to an extent of over half the total requirements and incidentally it has resulted in several million dollars of orders for supplies being placed in Canada. The market for the company's product will not be England as had been anticipated, according to a statement by John Stadler, the managing director of the company.

Value of Pulp and Paper Exports Increasing

Canadian exports of pulp and paper in March were valued at $15,752,685 which is the highest monthly total recorded since 1920, when prices were much higher than they are to-day. The report just issued by the Canadian Pulp and Paper Association shows that compared with the February figures, the value of pulp and paper exports last month increased by $4,192,109, of which $3,162,023 was due to larger shipments of paper and $1,030,086 to increased wood-pulp exports.

For the first three months of this year the total value of the exports of pulp and paper was $38,583,154 compared with $36,567,472 in the corresponding months of 1924, an increase for the current year of $2,015,682. The value of the paper exported in these three months was $27,059,549 compared with $26,366,136 in the first quarter of 1924 and that of pulp $11,523,605 compared with $10,201,336 in 1924.

Pulpwood exports in March were 189,777 cords valued at $1,870,212 an increase of about 20 per cent over the previous month when the total exported was 155,919 cords valued at $1,440,860.

To Start Paper Mill at Clarksdale, Miss.

CLARKSDALE, Miss., May 4, 1925.—A transaction which involves approximately a half million dollars was closed last week in Clarksdale, when Stephen J. Adam contracted for the purchase of the Roundaway Manufacturing Company, at Roundaway, Miss., eight miles below Clarksdale.

The plantation comprises about 10,500 acres of land, and on this will be constructed a paper mill and factory, according to Mr. Adam.

The factory will be erected at a cost of approximately $2,000,000 and will employ 2,000 skilled laborers, working for 300 days annually. He stated that the place would put out 20,000 tons of all kinds of paper; 20,000 tons of feed for cattle in winter; 10,000 tons of highly digestible corn gluten feed; and 5,000 tons of hog meal and several other by-products.

Sue International Paper for $1,000,000

BOSTON, Mass., May 4, 1925.—Suit was commenced in the Federal District Court here last week by the Beacon Oil Company against the International Paper Company, a New York corporation, for $1,000,000. It is alleged that the defendant agreed to take 550,000 barrels of oil at the Rumford and Livermore Falls, Maine, plants of the company under contract dated October 4, 1920, at a stipulated price of $3.50 per barrel.

Only a part of the order was accepted, the plaintiff being obliged to sell the balance at from 60 cents to $1.10 per barrel, according to the complaint. The defendants state that the failure to live up to the agreement was due to circumstances over which they had no control.

NEWS PRINT DEFINITIONS

(*Continued from page 31*)

to protect the publishers but on the other hand it also intended to protect the paper industry of the United States. From time immemorium, Congress has protected the paper industry. He pointed out that Court decisions and rulings regarding the Tariff are based on the situation as it existed in the particular industry when the law was passed. He said that the Treasury Department cannot rule on something in 1925 that did not exist when the law was passed in 1922. He contended that the definition presented by the domestic manufacturers is broad enough to take care of the publishers in their present wants.

Judge Chopak Takes Exception

Jules Chopak, attorney for the importers, took exception to the attitude of the publishers, that news print paper imported into this country, not used by the publishers, is not news print paper. It would be impossible, he said, to follow all of these shipments of imported news print into commerce.

C. G. Parker speaking also on behalf of the Import Paper Committee said that from an examination which he had made he could only find that one newspaper in the United States is today using super-calendared paper. Taking up the matter of sulphate, Mr. Parker said that at the present time it would cost manufacturers about $3 per ton more to produce news print paper from sulphate than from sulphite.

Mr. Parker spoke at some length of the tariff act and standard news print paper and called attention to the fact that term was put put in the tariff law by Congress for the first time in 1922. At that time, he said, the newspapers were the only users of news print paper. Discussing bootlegging importations, Mr. Parker said, that half-tone paper is being offered for importation free of duty as news print paper.

Mr. Considine read a short brief on behalf of the National Paper Trade Association in which objection was raised to the proposed new definition especially as regards size and width of sheets. The brief contended that this is class legislation, un-American and "not justified."

Wants Matter Held in Abeyance

Mr. Thomason at the conclusion of the hearing called Judge Moss' attention to the fact that the publishers are satisfied with the present definition and it was at this time that he suggested that the matter should be held in abeyance until Congress convened. Mr. Wise, answering a question as to how concerned the domestic manufacturers are with the situation, said that there is enough paper bootlegging going on to disturb the paper industry because if there were not the manufacturers would not be wasting their time asking for a revision of the definition.

In addition to those already mentioned, the following were present at the conference: John R. Miller, of the West Virginia Paper and Pulp Company, F. J. Sensenbrenner of the Kimberly-Clark Company; F. C. Lyden of the International Paper Company; W. B. Bullock, secretary and John R. Hecht, Customs Expert of the Import Paper Committee; O. M. Butler, acting chief of the Paper Division of the Department of Commerce; Dr. F. K. Burgess, director of the Bureau of Standards and B. W. Scribner, chief of the Paper Division of the Bureau; R. T. Houck and Mr. West of the Mead Sales Company; L. B. Palmer, manager, and Elisha Hansen, Washington representative of the American Newspaper Publishers' Association; E. W. Camp, director of the Customs Service and G. W. Ashworth of the Service. There were also present several importers and a large number of newspapers publishers.

A charter has been granted to the Pigeon Timber Company, Port Arthur, Ont., with an authorized capital of $200,000 to buy, sell and manufacture all kinds of forest products including pulp and paper. Among the incorporators are E. E. Johnson and A. L. Johnson, of Port Arthur.

National Committee on Wood Utilization Convenes

Norman W. Wilson, President of The American Paper and Pulp Association, Tells Committee That the Industry is Tackling Waste Problem From Two Ends—Dr. Hugh P. Baker Says Paper Industry Faces Two Problems, One Technical and One Commercial—Secretary Hoover Presides at Meeting.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 4, 1925.—Norman W. Wilson, president of the American Paper and Pulp Association, on Saturday reported to the first meeting of the National Committee on Wood Utilization appointed by Secretary of Commerce Hoover that the paper and pulp industry is tackling the waste problem from two ends.

The Committee, which was appointed by Secretary Hoover, is made up of representatives of the paper and pulp industry, the railways, the purchasing agents of the country, the wood using industries, the lumber manufacturers and retailers, the architects and contractors, the American Engineering Council and National Farm Organizations.

Tells of Paper Mill Efforts

More and more paper mills are employing foresters to secure expert treatment of the timber and to reproduce their wood supplies, Mr. Wilson said. At the finishing end of the industry there is being given increasing attention to research, to new uses of by-products. He cited progress made in the methods of removal of bark from the logs used in pulp making as a conservation resulting from research. Canada, Mr. Wilson pointed out, is setting up a program to combine the industrial uses of her timber, and this country will have to adopt a similar program.

Dr. Hugh P. Baker, secretary of the American Paper and Pulp Association, declared that while the paper and pulp industry consumed 6,000,000 cords of wood annually, this is but 4 per cent of the timber cut in the United States. The value of paper products and paper goods, he said is about $24,000,000,000.

Dr. Baker on Industry's Problems

The industry, he said, has two problems, one technical and the other commercial. In the technical field, decay of wood and utilization of decayed woods has been combated by the Forest Products Laboratory. Hardwoods are being used with success where they were not formerly usable and where a decade ago foresters considered the hardwood trees a nuisance. The industry is being obliged to go as far as 600 to 800 miles afield to the forests and a proposal has been on foot to go 1,200 miles in order to get raw material from the National preserves in Wyoming and Montana.

The use of the wasted woods from lumber manufacturers in the South is being carried on successfully in parts of the South, Dr. Baker said, and he declared that the Committee could make a valuable contribution by a survey to indicate where such waste material was available. He predicted that as distillation of wood gains, pulp will become a by-product. The paper industry is buying a quarter of its supply in Canada, Dr. Baker said, and he urged that potential resources in this country should be studied as well as those of Alaska where the surveys should consider the wood and power supplies, costs, and transportation factors.

Secretary Hoover Speaks

Secretary Hoover in opening the meeting explained what his Department has been developing during the past three years with industries to eliminate waste. He announced that an anonymous gift had been received of $25,000 per year for two years to serve as the nucleus for financing the investigations which the wood utilization committee will undertake.

The program of the Committee he said, should take the form of day to day operations, studies being made of specific industries, to ascertain the full facts, and then to be considered from the standpoint of their interrelation with other industries to the end that the by-products of one industry may be utilized wherever possible by another.

Scandinavian Use of Waste

Col. W. B. Greeley, chief of the Forest Service, told the Committee that the Scandinavian Countries are making their pulp from the wastes of lumber manufactured. This example is one which might be followed in this country by surveys to indicate where the unused waste material, is what its character is and how it can be utilized to a practical extent. The huge waste in logging operations is here and there put to use, but only to a limited degree. Fields for progress were suggested in a more extensive use of present wastes for distillation or for wood pulp.

Mr. Wilson and Dr. Baker are the only two members of the Committee representing the paper industry. Secretary Hoover is chairman of the Committee and Col. Greeley, vice-chairman.

Moore & White Co. to Expand

PHILADELPHIA, Pa., May 5, 1925.—Another step in the successful career of The Moore & White Company was revealed at the annual meeting, on April 25. At this time it was announced that the increase of their business and the demand for wide paper had necessitated the purchase of an additional tract of land in the vicinity of their present plant. Here will be erected a machine shop with special equipment for building the larger paper machines and a warehouse for stock and finished machinery.

This tangible indication of the marked success of the company gives added significance to the election of officers which was held at the same time. The new Officers are: President, Shelton A. Hibbs; vice-presidents, Deacon R. Taylor, Conrad J. Kern, J. Atwood White, Jr.; J. Atwood White, who has served as president of the company for years, becomes chairman of the board of directors, where his judgment in shaping the policies of the company will still be an active force in the organization. Mr. Hibbs and Mr. Kern have been associated with The Moore & White Company for more than twenty-five years, and are responsible for no small share of its successful development.

The following Directors also were elected at the annual meeting: J. Atwood White, Deacon R. Taylor, Shelton A. Hibbs, George H. Thornley, Conrad J. Kern, and J. Atwood White, Jr. All these men are directly associated with the business with the exception of Mr. Thornley, who is a member of the advertising firm of N. W. Ayer & Son, Philadelphia.

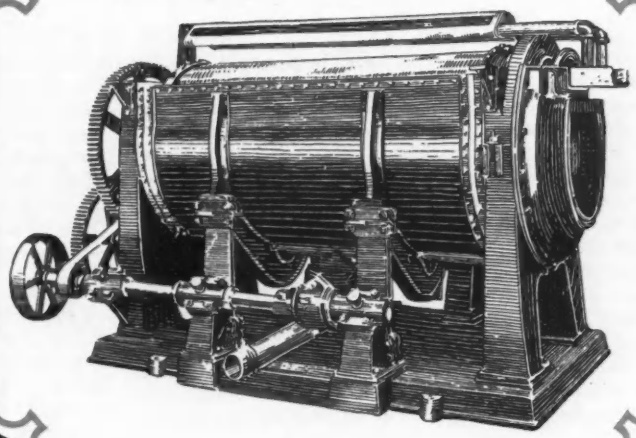
The Moore & White Company, founded in 1885, is one of the oldest and largest manufacturers of machinery used in the production of paper. They number among their clients of long standing the leading representatives in each phase of paper making, from the manufacturers of coarse papers used for roofing and building to the makers of the finest stationery.

Open a New Branch

[FROM OUR REGULAR CORRESPONDENT.]

LOS ANGELES, April 20, 1925.—The Nelson, Parr Inc. announces the opening of a new branch at Riverside, California, to be known as the Citrus Belt Paper Company. Headquarters will be at the Salt Lake Railroad warehouse and Albert Mills will be in charge as manager.

Keeping ahead of the crowd



NINE years ago Bird Screens took their position ahead of the crowd. During the intervening years they have maintained that lead, until today they are the premier paper screens of the world. Yet, more effort is being spent on their improvement than in any of the ten years since the first Bird Screen filled its head box.

Like the growth of a tree, radical changes come slowly, but each year shows a marked improvement — a stronger, sturdier Bird Screen—one that is better fitted to do its job of screening paper stock.

That is why 16,000 Tons of Paper pass through Bird Screens daily.

BIRD SCREENS

BIRD MACHINERY

BIRD MACHINE COMPANY

South Walpole, Massachusetts

7576

Philadelphia Dealers Trying to Stimulate Sales

Trade Bending Its Energies to Efforts Which Seek to Break Up Sluggish Market—Increased Postal Rates Found to Have Effect on Paper Demand—Coarse Paper Men Discuss Conditions—Paper House of Pennsylvania Opens Mexican Office—Kieckhefer Container Co. Fire

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., May 3, 1925.—While generally speaking the local paper trade is drifting along in a sluggish market there are a few of the dealers in both divisions who find that they have been able to stimulate their sales by persistency and concentrated effort. It is true that no spectacular sales are to be had even with this aggressive campaigning but there is a fair amount of business secured by the go-getter, as has been proven by reports from those dealers who have been most active on the outside. The successive drive on the part of the most aggressive of these dealers leads them on to an encouraging attitude for the future and they are convinced that the present slump is due primarily to a psychological attitude towards business rather than to actual fundamental unsoundness. Of course the price quotations have much to do in securing present orders. It is not the question of price cutting that enters into the deals but that of a fair quotation conforming with the immediate markets and the maintenance of overhead accordingly.

Postal Rates Indirectly Affect Paper

Recent revisions in the postal rates have had their effects on the fine paper markets and to a limited extent the coarse paper commodities have been reflecting the advance in mail rates. With the advance in the price of postage on circulars and other printed matter, the business world has been retrenching in its printing and consequently the printers have been buyers of less paper. This disturbance in the postal rates has discouraged circularizing and where formerly 1,000 pieces of printed circulars could be sent for $10 they now require a layout of $15, therefore the consumer is now curtailing his printing bills as well as his mailing. Most grades of paper have been affected by the new ruling with the various grades of news prints used in the publishing of periodicals, and coming under the postal rise also included.

Although there are many offering of Krafts from the mills the price of these have shown a tendency to hold fairly steady. Prices have been so leveled to attractive quotations that there is not much margin left for cutting and this has been effective in bringing about a steadier tone to the market. It is more likely that any changes will be upward as already an announcement has been sent out by one of the Southern Mills, recently very active in the Philadelphia trade, of its intention to advance its quotation 15 cents per hundred pounds.

Rag Market Advances

Scarcity of the most active grades of the lower priced rags has produced a revision of prices to higher levels. There is no accumulation of these grades and a very few of the higher valued materials. Imported rags of all kinds have been falling off in importations and the domestic commodities have been absorbed by the mills with the exception of the few grades of high priced stocks that now are being held for future deliveries in anticipation of better quotations. Paper stocks too have been less in demand but with prices firmly held and accumulations at a minimum except for a few of the higher priced stocks which have been inactive for almost a year.

Conditions Discussed at Coarse Paper Meeting

The chief concern of the coarse paper dealers in these days of conflicting markets is what may be looked for in the future and so the topic of paramount importance at the last April meeting of the Coarse Paper Division of the Philadelphia Paper Trade Association was along these lines. In a round table discussion the members were of the opinion that conditions are fundamentally sound and that the present quietness is merely a resting spell pending the resumption of the industrial world's activities as soon as confidence has been restored. Concern of the local dealers over the future and the united effort to keep in touch with the trade in a co-operative spirit was responsible for the splendid attendance of the coarse paper dealers at this gathering. The Chairman of the gathering was Joseph Weaver, manager of the Coarse Paper Department of the Garrett-Buchanan Company, and under his leadership the open forum was held.

Opens Mexican Office

Conforming with its recently announced plans of developing the South American and Central American fields for the distribution of papers made in this country, the Paper House of Pennsylvania, 28 N. 6th street, announced during the week that it has appointed a manager to look after its interests in Mexico. The Mexican manager is J. A. Llopart, who sailed for Mexico City today to open up an import office for American made papers which will be distributed through the branch in that city. Manager Llopart is well acquainted with the territory he will cover having for 12 years been associated with the Parsons Paper Company in South America, during the last five years saving been in charge of the Rio Janiero offices and previously having covered the Central American countries.

Enterprise Co. Opens in Coal Regions

An office has been opened in the coal regions of Pennsylvania by the Enterprise Paper Company, Third and Callowhill streets. The new offices are located in Sunbury, Pa., and will take care of the needs in the mining and other sections of Pennsylvania adjacent to that territory. A resident manager will be placed in charge of the offices who will take care of the Company's coarse paper and specialty distribution business. The Enterprise Company has added to its line the Mitch Parchment papers made by the Fletcher Paper Company of Alpena, Mich. The Company will be sole Philadelphia distributor for these high grade wrappings. Another line that has been added is that of Bloomer Brothers, Newark, N. J., soda fountain specialties.

Kieckhefer Co. Stock Destroyed

Several thousand dollars' worth of paper stock accumulated in the yard of the plant of the Kieckhefer Container Company, at Delair, was destroyed by fire during the past week. Derricks were used to remove the bales of paper in order to save some of the stock used in the manufacture of container board.

President of Credit Association

Walter P. Miller, of the firm of the Crescent Corrugated Products Corporation and head of the Walter P. Miller Paper Box Company, 5th and Noble streets, has been elected President of the Philadelphia Association of Credit Men.

William P. Morris was elected to the Board of Directors of the Pennsylvania Salt Manufacturing Company, manufacturers of paper making chemicals, during the week. He succeeds Richard Wood, who resigned.

Pinco Papers Adds to Plant

Pinco Papers, Inc., of Camden, manufacturers of glazed and coated papers, has added to its plant space by a building adjoining the original home at 9th and Bailey Streets, in the city across the Delaware. The new addition is now occupied as a color room and store house. It is a one story structure of brick and concrete.

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EVERY DESCRIPTION

Demand for Paper in Toronto Is Fairly Satisfactory

Coated Paper Trade Reported Considerably Improved—James Lyons, Minister of Lands and Forests for Ontario, Says That Canada Ranks Third Today in Forest Wealth Among the Nations of the World and Second in the Production of News Print

TORONTO, Ont., May 4, 1925.—Business in the paper line is not as brisk in the cities as it is in the country towns and it is from the latter places that jobbers are receiving most of their orders. The printing trade in Toronto is rather slack at the present time and buying is conducted in limited quantities. In the outside places, trade appears to be steadier and more sustained ever since the first of the year. In the larger cities there have been many ups and downs and just when it is thought that a measure of recovery has been reached, a few days' slackness dispels much confidence that has been engendered.

The coated paper trade is considerably better than it was and mills are getting quite busy. There has been a reduction of one-half cent a pound on No. 6 grade of bond paper, which means that the ring water mark and the plain are now sold on the same price basis.

Provincial Paper Mills Busy

The Provincial Paper Mills, Toronto, report that their plants are operating to capacity and that they have business ahead for some time. They add that their mills have done very well this year and prices have been well maintained. Last year price concessions were prevalent in some lines owing to keen competition, but Canadian firms have been able to readjust quotations upward as a result of an improvement in demand. This has brought about larger profits on the output. The Ontario tonnage is not quite so large owing to the Kinleith plant at St. Catharines going out of business some months ago. The Provincial Mills considers that the outlook for the coming season is good.

Local Use of News Print Paper

Ninety per cent of the news print manufactured in Canada is exported, the Canadian dailies and weeklies using only two hundred and six tons daily, according to figures released by the National Resources Intelligence Service. An official statement says that spruce is used chiefly and, of this species, there have been burned by forest fires 470 million cubic feet or sufficient to provide news print for a sixteen page paper, three hundred and thirteen days in the year for seventy years. For saw timber and pulpwood, Canadians have used 558 million cubic feet of spruce. In view of this extravagance comparison, the charge of extravagance against daily papers can hardly be established.

Ranks Third in Forest Wealth

Hon. James Lyons, Minister of Lands and Forests for Ontario, says that Canada ranks third today in forest wealth among the nations of the world and second in the production of news print. He prophesies that, by the end of the present year, the Dominion will be in the leading position. The Department of Lands and Forests is doing everything in its power during the present season in getting vacationists and tourists as well as the general public to do all humanly possible to prevent forest fires.

Support an Embargo on Pulpwood

George B. Nicholson, former Member of the Canadian Parliament for East Algoma, and a leading operator in pulpwood and sawn timber, in a recent address in Toronto stated that Canada had the greatest storehouse of natural resources of any country in the world and it only awaited development. In these undeveloped resources the Dominion had everything ready to take care of a population of fifty million people. Mr. Nicholson paid a tribute to the enterprise and growth of the pulp and paper industry but strongly supported an embargo on the export of pulpwood from freehold lands and the manufacture of all Canada's raw material at home.

Backus Doubling Output at Kenora

An extensive building programme has been begun at Kenora, Ont., by the Backus-Brooks Company and an addition to the paper mill is under way. The order has been placed for another machine, 234 inches wide, which will more than double the present capacity. It will be located on the north side of the present building, paralleling the other machine, in the space now being used as the finishing room and will bring production up to 250 tons daily. The new addition will be used as a finishing room and shipping department. The capacity of the present mechanical pulp plant will also be doubled and will mean a building of about equal size to supply the demands of the enlarged paper mill.

It is understood that work will also be commenced very soon on the erection of a sulphite plant which will be located on the old baseball grounds near the mill. At present the sulphite pulp being used is being shipped from the company's plant at Fort Frances. With another steam power house the building programme this year of the Backus-Brooks Company is a large one.

Many Paper Men Join Club

The City Club, of Toronto, was formally opened recently and a large number of paper jobbers are members. Fred W. Halls is one of the directors and among the other members, are R. I. Finlay, President of the Canadian Paper Trade Association, E. S. Munroe, Treasurer of the Canadian Paper Trade Association, and H. B. Donovan of the Canada Paper Company. The Toronto members of the Canadian Paper Trade Association have arranged to hold their regular luncheons at the City Club, which has fine bright premises and starts off with a large membership.

Will Soon Move Into New Home

The Ratcliff Paper Company, Toronto, which has for some years occupied premises at 44 York street, recently purchased a large building at 80 York street which is now being remodelled and put in shape for the occupancy of the firm. The company expects to remove to its new home about June 1 and will have greatly enlarged quarters and nice general offices. F. L. Ratcliff, president of the company, and Mrs. Ratcliff, returned last week from an extended holiday trip to Bermuda.

Notes and Jottings of the Industry

Ald. Furniss, assistant controller of the Spanish River Pulp and Paper Mills, Sault Ste. Marie, Ont., and A. H. Chitty, treasurer of the company, were in Toronto lately calling upon the trade.

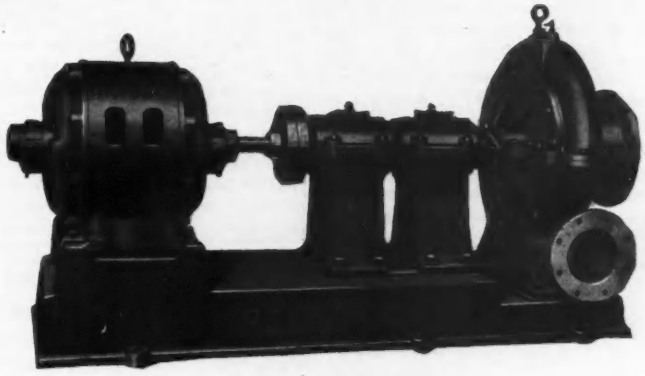
E. Saint-Loop, of the E. Saint-Loop Paper Company, Montreal, was a business visitor to Toronto recently.

Mr. Deque of the Process Engineering Company, New York city, spent a few days in the province of Ontario installing the company's sizing system in several plants.

P. B. Wheeler of the Franklin Paper Company, Holyoke, Mass., was in Toronto lately, calling upon the members of the trade.

The next annual convention of the Canadian Paper Box Manufacturers Association will be held at the Hotel Clifton, Naigara Falls, Ont., on June 22 and 23. The keynote of the gathering will be "Confidence" and the papers and speeches will be largely based on this theme.

FREDERICK PUMPS



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Kalamazoo Mills Experiencing Season of Activity

Mackay Wire Works Completes Installation of Third Winding Reel—Gus Riedel Soon to Be Located in New Factory Building—Central Manufacturing Co. Making Foreign Shipments of Products—Queen City Printing Ink Co. Leases Additional Storage Space

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., May 4, 1925.—The Mackay Wire Works, builders of high grade fourdrinier wires, has completed the installation of a third winding reel in its North Church street plant. By this action the capacity of the concern is more than doubled. The new winder has a width of 176 inches and will handle screens for the largest machines in the valley.

M. J .Mackay came to Kalamazoo three years ago and made his first fourdrinier screens in a temporary shop set up on the east side. It was about a year and a half ago that he moved to his present quarters and is now operating his plant at full capacity. He has incorporated with a capital of $25,000, the officers being M. J. Mackay, president; Wilfred Strong, vice president; F. J. Buckley, treasurer and C. B. Mackay, secretary.

Not only does this concern make fourdrinier wires, but in addition screens for coating mills and the highest type of nickel screen work.

The addition of the third winder to the plant's equipment has made it necessary for Mr. Mackay to engage more help. While he requires the services of high grade men in their line, a comparatively small force will operate the plant successfully. Eight to ten are sufficient for his needs.

New Riedel Factory

Gus Riedel, makers of coating mill and textile mill brushes, will soon be located in his new factory building, and operating at greatly increased capacity. It is one of the finest moderate sized plants in Kalamazoo. The building proper is 166 by 60 feet in dimensions, one story high. It is erected of brick, concrete, glass and steel with a built up composition roof. In addition to the main plant there is an "L," devoted to a stock storage room, fire-proof and capable of carrying a heavy line of high grade Chinese bristles.

The equipment includes the best types of metal and woodworking machinery. A Perkins kiln, 20 by 20 feet in dimensions, is used for conditioning lumber, used for brush backs. All machinery will be electrically driven. Heating and driving is effected by two American Radiator boilers, while Clarage fans are installed for ventilation.

Gus. Riedel, founder of this industry, is a native of Posen, Germany. He entered the trade of brush making at the age of 13, serving four years as an apprentice without pay. Forty years ago he came to Holyoke, Mass., opening his own plant. In 1910 he moved to Paw Paw, his health forcing the move. About 10 years ago he came to Kalamazoo and started a small plant at 229 Woodward avenue. With enlarged capacity he plans to employ a considerable force of employes.

"Both our coating mill and textile mill brushes are under the class 'accepted standard,'" said A. William Riedel, speaking of the line. "Practically our entire product is handmade, brushes being made to order and as needed by our customers. We have specialized on quality exclusively. By that method we have been able to compete successfully against the cheaper made European brushes and are selling to coating mills all over America and Europe.

"While we will at no time employ a large force, we will need skilled men in every department, each one a specialist in his particular line."

Helped Initiate President Coolidge

Two citizens of Kalamazoo are willing to testify that President Calvin Coolidge is a regular fellow. They helped to plant the horns of Elkdom on the head of the present executive of the United States away back in 1905.

In the year indicated Gus. Riedel, coating mill brush maker and Jacob Kuss, former superintendent of the Allied Paper Mills coating divisions lived in Holyoke, Mass. The Holyoke lodge of Elks was called on to institute the new lodge at Northampton, Mass. Mr. Riedel and Mr. Kuss were in the party that made the trip. Following the institution, Calvin Coolidge was elected the first exalted ruler of the Northampton lodge and served with credit.

Central Co. Products in Demand

Among the Kalamazoo products that are finding favor in the markets of the world are the screen plates and dandy rolls manufactured by the Central Manufacturing Company. These two items of equipment, used in paper mills, are in use on all fourdrinier machines.

Albert C. McDonald, president and general manager, reports recent shipments to mills in Japan, Finland and British Columbia, as well as to concerns in Ohio, Wisconsin and Minnesota. Practically all the concerns in the Kalamazoo valley district use wholly the products of this concern.

While this concern does a general foundry and machining business, its specialty is the paper mill equipment above indicated.

Gets Additional Storage Space

Business of the Kalamazoo branch of The Queen City Printing Ink Company is increasing so rapidly that James M. Alden, manager, reports it has been necessary for him to secure additional accomodations. He has leased storage room space immediately adjoining his present quarters at 430 East Main street, the new area being 50 by 20 feet in dimensions. This will be occupied immediately. He is also taking on more men in the plant. Shipments are made from the local branch to all points in Michigan. A large amount of stock is carried on hand at all times.

Kalamazoo News Notes

F. M. Hodge, president of the Kalamazoo Paper Company, accompanied by Mrs. Hodge, have returned from a ten weeks' tour of countries adjacent to the Mediterranean sea.

Robert L. Pease, vice president of the Hawthorne Paper Company, was in Kansas City last week on business.

John Seltenrich of the Surplus Machinery Exchange has closed a contract with all the paper mills in the Kalamazoo valley district to handle all their surplus and discarded equipment.

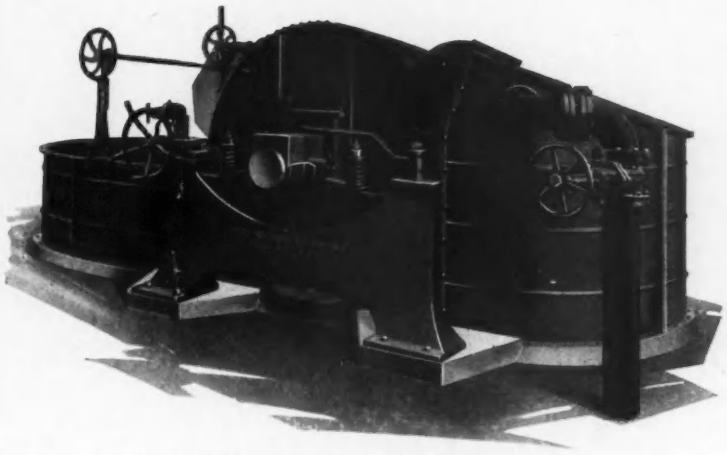
Standard Wall Paper Co. to Build at Joliet

[FROM OUR REGULAR CORRESPONDENT.]

JOLIET, Ill., May 4, 1925.—The Standard Wall Paper Company, of Hudson Falls, N. Y., has recently let a contract to the Chicago office of The Austin Company for the design, construction and equipment of extensive additions to its branch plant in Joliet, Ill. The new units will comprise a mill room 60 x 360 ft. with an L 60 x 60 ft. and a warehouse building 100 x 140 ft. with a basement 80 x 140 ft. Heating, lighting, plumbing and sprinkler system are included in the contract. Buildings will be a steel frame, mill type construction. Continuous sash and ¼ inch wire glass will give the buildings maximum lighting and ventilation. The builder has agreed to complete the project not later than June 15th, 1925.

The Standard Wall Paper Company has been a well known firm in its field for the past twenty years. W. A. Hyppuch is president and Preston Paris, vice-president. The present contract is a repeat project for this company and for the builder at Joliet.

"Your paper is made in the beaters"



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This Advertisement

of our NEW TYPE Beating Engine is published because we honestly believe it is the best beating engine that has ever been designed. We want every paper mill superintendent, consulting engineer, and mill owner to know about it. We have sold almost thirty in a few months and we want YOU to be acquainted with it. Write us for details.

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New York Trade Jottings

Edward J. Bernholz and Sons, dealers in rope and twine, moved on May 1 from 280 Madison avenue to their new quarters at 37-39 Old Slip.

* * *

W. Eyberg of J. W. Zanders Paper Mills, Bergisch Glandbach, Germany, arrived in New York on April 22 and will be here about a month, making his headquarters with Fred C. Strype, 320 Broadway, who is American agent for the Zanders mills. Mr. Eyberg is here on business.

* * *

L. M. Alexander, National Councilor for the Paper Industry, and Dr. Hugh P. Baker, secretary of the American Paper and Pulp Association, will represent the association at the thirteenth annual meeting of the U. S. Chamber of Commerce to be held in Washington, May 19-22.

* * *

O. A. Miller, president of The Central Ohio Paper Company, has been re-appointed as national councilor and delegate to represent The National Paper Trade Association at the thirteenth annual meeting of the Chamber of Commerce of the United States at Washington, May 19 to 22.

* * *

Funds are now being pledged for the activities of the Woodland Section during 1925. The section's program this year will be the first step toward definite wood service on the part of the association. The association was instrumental in securing general observance of American Forest week. Forest service pamphlets and others were sent out presenting forest data and urging the necessity of fire prevention and reforestation.

* * *

R. S. Kellogg, secretary of the News Print Service Bureau, received a check for $125 on Monday from "Life," having been awarded second prize for the best showing throughout the recent letter contest conducted by that publication. There were ten questions to be answered in the contest and Mr. Kellogg had one winning letter which brought him $50 and an additional check for $5, regular publication rates. In addition Mr. Kellogg won several honorable mentions during the contest. He is $180 ahead for this little excursion into literature.

* * *

Dr. Hugh P. Baker, secretary of the American Paper and Pulp Association, is in receipt of a letter from H. R. Colwell of the Simplified Practice Division of the Department of Commerce, asking him to appoint a standing committee of the paper industry to help carry out the simplification program. The committee is to consist of not over seven members representing the various paper associations as well as the trade in general. The present paper simplification program became effective on July 1 of last year. When the new committee is appointed it is understood a conference will be called.

Paper Production Increases in March

The March production of paper in the United States as reported by identical mills to the American Paper and Pulp Association and cooperating organizations, showed an increase of 8 per cent as compared with February's production, following an 8 per cent decrease in February over January, according to the Association's Monthly Statistical Summary of Pulp and Paper Industry. All grades showed an increase in production as compared with February, with one exception.

The Summary is prepared by the American Paper and Pulp Association as the central organization of the paper industry, in cooperation with the Binders Board Manufacturers Association, Converting Paper Mills Association, Cover Paper Association, Newsprint Service Bureau, Wrapping Paper Manufacturers Service Bureau and Writing Paper Manufacturers Association.

The figures for March for same mills as reported in February are:

Grade	Number of Mills	Production, Net Tons	Shipments, Net Tons	Stocks on Hand End of Month, Net Tons
News print	66	127,624	126,482	26,666
Book	63	94,719	95,242	39,501
Paperboard	105	118,271	119,798	30,418
Wrapping	83	49,986	50,875	59,305
Bag	26	11,173	11,099	6,547
Fine	82	31,552	30,415	42,295
Tissue	45	12,534	11,623	11,810
Hanging	8	4,225	3,985	2,003
Felts	20	15,027	14,821	3,823
Other grades	64	22,261	22,066	16,160
Total—All grades	...	487,372	486,406	238,528

During the same period, domestic wood pulp production increased 28 per cent, this increase being distributed over all grades, but one. The March totals (mills identical with those reporting in February) as reported by the American Paper and Pulp Association, are as follows:

Grade	Number of Mills	Production, Net Tons	Used, Net Tons	Shipments, Net Tons	Stocks on Hand End of Month, Net Tons
Ground wood pulp	100	115,003	92,413	3,106	135,069
Sulphite, news grade	38	41,528	37,562	3,389	8,997
Sulphite, bleached	19	23,873	19,244	4,410	3,281
Sulphite, easy bleach	5	4,875	4,469	602	700
Sulphite, Mitscherlich	5	4,221	3,516	739	840
Sulphate pulp	10	14,236	11,761	1,727	4,457
Soda pulp	11	18,271	13,463	4,714	2,097
Other than wood pulp	2	33	.....	.....	56
Total—All grades	...	222,040	182,428	18,687	155,497

Training in the Paper Industry

At the Annual Meeting of TAPPI it was decided to form a Committee on Training in the Industry to supplement the work which has been done by a Committee on Vocational Education. This had been to cooperate with the Joint Committee in the preparation of the textbooks on the *Manufacture of Pulp and Paper*, to raise its quota of funds needed to finance the publication, to assist in the establishment of correspondence courses in pulp and paper, and to stimulate the use of the textbooks in the paper mills particularly of United States.

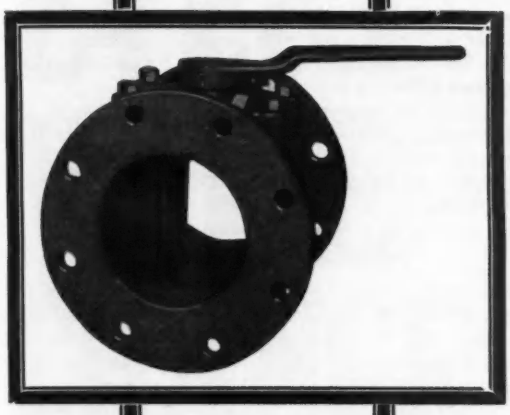
After six years' work it was felt that since the textbooks were completed and facilities for vocational education had been provided, its work was finished.

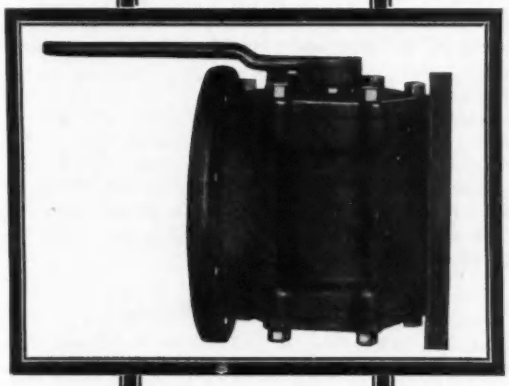
As the membership of the Technical Association is largely recruited from the young technically trained men who enter the industry after graduation, it was decided that the first duty both to them and to the industry, was to see that these young men were enabled to become trained in pulp and paper manufacture and thereby fitted for executive positions.

In order to develop a plan whereby such training might be provided by the paper mills which recognize the need, the Committee on Training in the Industry was appointed. For Chairman the Executive Committee selected Martin L. Griffin, one of the deans of the technical men in the paper industry, and as he has always been vitally interested in this subject he willingly accepted. On the committee will be James A. Moyer, director of the University Extension of Massachusetts, who has consented to act. A number of paper mill executives, who have been closely identified with the Association, are being selected, and with them members of several technical schools, many of whose graduates regularly enter the paper field.

New England Paper Men to Meet May 12

It was incorrectly stated in a recent issue of the PAPER TRADE JOURNAL that the next meeting of the New England Paper Merchants' Association would be held at Worcester, Mass., May 22. The correct date is at 12 o'clock noon, Tuesday, May 12.





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Obituary

Fred D. Howland

HUDSON FALLS, N. Y., April 30, 1925.—Funeral services for Fred D. Howland, fifty-nine years old, a son of the founder of the paper industry in Washington county, will be conducted at 3:30 this afternoon in the family home, 9 River street, by the Rev. J. Servis LaRue and the Rev. C. O. Judkins. Mr. Howland was a member of one of the oldest families in the village and was president of the Thomas Phillips Paper company of Akron, Ohio.

Mr. Howland's father, the late Amasa Howland, was the founder of the paper industry in Washington county. A grandfather, Stephen Howland, built the old paper mill at Bakers Falls, the first of its kind in New York state and it was in 1899 that the Howland Paper company sold out to the Union Bag and Paper corporation which concern still conducts the paper business in this village.

The progenitor of the Howland family in America was Henry Howland, a Quaker immigrant, who came to America in 1625. His brother, John, had come over five years before in the Mayflower. Henry Howland's son, Zoeth, was born in Duckbury, Mass. He was a member of the Plymouth colony and was a devoted Quaker. He was killed during the King Phillip war in 1676.

Besides his widow he is survived by one daughter, Miss Mary L. Howland; three sons, Amasa W. Howland, Richard J. Howland of Hudson Falls and F. Arthur Howland of Syracuse; one sister, Mrs. John E. Parry, of Glens Falls.

Findings in Paper Rate Cases

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 5, 1925.—Rates charged on numerous shipments of news print paper in carloads from Millinocket and East Millinocket, Maine, to Providence, South Providence and Pawtucket, R. I., have been found unreasonable in a proposed report to the Interstate Commerce Commission by Examiner F. M. Dolan and reparation has been recommended.

This report has been made in docket 15,870 of the Great Northern Paper Company against the Bangor and Aroostook Railroad.

A decision has been rendered by the Commission in connection with rates on paper and paper articles from Wisconsin, Minnesota, Michigan, and Canada, to New Orleans, Louisiana. In their syllabus in this case the Commissioners say:

"Fourth Section Order Number 8891 modified so far as it authorized the carriers to establish and maintain rates on paper and paper articles, in carloads, from points in Wisconsin, Minnesota, Michigan, and Canada, which are higher to Jackson, Mississippi, than to New Orleans, La."

A decision has also been rendered by the Commission in a wall paper case in docket 16,136 of Becker, Smith and Page, Inc., against the Boston, Maine Railroad in which the Commissioners say in their syllabus:

"Rates on oatmeal or ingrain wall paper, in carloads, from North Hoosick and Wallomsac, New York and Appleton and Neenah, Wisconsin, to Jersey City and Philadelphia, Pa., found not unreasonable but unduly prejudicial. Undue prejudice ordered removed."

Spitzer Paper Box Co. to Build Addition

[FROM OUR REGULAR CORRESPONDENT.]

TOLEDO, Ohio, May 4, 1925.—Contract for a new $25,000 addition to the plant of Spitzer Paper Box Company, was awarded recently to the H. J. Spieker Company, general contractors, it was announced by President Lyman Spitzer.

The new addition will be built on property which was destroyed in the fire which wiped out the Eckhardt Monumental Company, plant last December and which is now being rebuilt. The location is on the south side of Monroe street in Auburndale.

The new Spitzer addition will cover the vacant property between the two plants as at present will have frontage of 40 feet with depth of 150 feet. It will be two stories in front and one story in the rear with modern saw-tooth factory construction.

This will be the third addition to the Spitzer Paper Box Company plant in the last few years.

Last year the company purchased control of the M. H. Smith Lithographing Company, and since that time the present plant has become so crowded the added capacity was needed.

Architects for the structure are the Rheinfrank-Forster Engineering Company.

Paraffine Company Organized

KALAMAZOO, Mich., May 4.—The Kalamazoo Paraffine Company, capital $25,000, has been organized and will start business in this city about June 1. The Pennsylvania railroad warehouse, located at Fulford and Reed streets has been leased and will be used for factory purposes at the outset. This is a one-story frame structure and contains approximately 5,000 square feet of floor space. Special machinery has been ordered and will be ready for installation in about two weeks.

The officers of the new concern are: President, L. W. Sutherland; vice president and production manager, W. A. Macumber; secretary-treasurer, F. W. Sutherland. Mr. Macumber comes to Kalamazoo from Chicago.

Speaking of the plans and purposes of the new concern L. W. Sutherland said: "The Kalamazoo Parrafine Company was organized to refine petroleum products. We purchased what is known as 'crude scale,' a low grade product and refine it to a high grade under special patented methods, originated by Mr. Macumber. The refined article is sold to waxing paper concerns and other industries that use wax in their processes. We will employ about 15 at the outset, all men."

Large Issue of Bonds

KALAMAZOO, Mich., May 4, 1925.—What is believed to be the largest single issue of bonds ever brought out by the development of the pulp and paper industry has been sold by the Minnesota and Ontario Paper Company to Halsey, Stewart & Co., and the Minnesota Loan and Trust Company. These bonds will be offered in Kalamazoo by Olmtsead and Mulhall, syndicating with Halsey, Stewart & Co. The issue consists of $16,000,000 first mortgage 6 percent sinking fund gold bonds.

The Minnesota and Ontario Paper Company operates mills in Minnesota and Canada and manufactures news print, a kraft paper, known as "Backus Gray" and controls the manufacture of a patented insulated building material, "Insulite". Lumber is also handled, while valuable hydro-electric properties are held.

When the proposed improvements are completed, this concern will have an annual capacity of 200,000 tons of news print, 30,000 tons of sulphate or kraft pulp, 60,000,000 feet of "Insulite" and more than 125,000,000 of rough and finished lumber. The company is also adding 45,000 horsepower to its hydro-electric facilities and building a supplementary steam plant of 7,000 horse power.

Receiver for Hartford Tissue Mills

HARTFORD, Conn., May 4, 1925.—On application of B. L. Trillich et al the Superior Court of Hartford County has appointed P. Le Roy Harwood of New London, temporary receiver of the Hartford Tissue Mills, Inc. The receiver was directed to furnish surety in the sum of $10,000.

A hearing upon the confirmation of the appointment of the receiver and for the appointment of two appraisers will be held before the Superior Court of Hartford, May 15.

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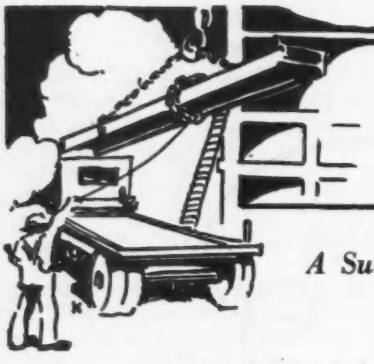

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Lowville, N. Y.—The Beaverland Corporation, manufacturer of bottle caps and kindred paper products, has plans under way for the construction of a new addition to its plant, reinforced-concrete and steel, two-story, 55 x 100 ft., estimated to cost about $45,000. It is planned to begin work at an early date.

Rumford, Me.—The Oxford Paper Company is awarding miscellaneous contracts for the completion of its new plant addition, now under way, one-story, 80 x 130 ft., to be used primarily for storage and distributing service, including heating, plumbing, electric work, etc. The general contractor is F. A. Rumery & Company, 537 Congress street, Portland, Me.

Beaver Dam, Wis.—The Beaver Dam Fibre Company has plans nearing completion for the construction of a new local plant, comprising two main one-story buildings, 72 x 133 ft., and 25 x 250 ft., estimated to cost close to $55,000. O. Olman, Jr., Juneau, Wis., is secretary.

Fort Madison, Wis.—The Hinde-Dauch Paper Company, Sandusky, Ohio, manufacturer of corrugated paper boxes and containers, has preliminary plans under advisement for the construction of a new local plant on Occidental street, to be three-story, brick, steel and reinforced-concrete, reported to cost close to $100,000, including equipment. Sidney Frohman is president.

Detroit, Mich.—The Gagnier Fiber Products Company, has preliminary plans under consideration for the rebuilding of the portion of its local plant, recently destroyed by fire, with loss estimated at close to $75,000, including equipment.

Cincinnati, Ohio.—The Bishopric Manufacturing Company, manufacturer of wallboard products, is considering plans for the rebuilding of the portion of its factory, destroyed by fire April 25, with loss reported at close to $100,000, including machinery.

Rainbow, Conn.—The Stevens Paper Mills, Inc., has awarded a general contract to R. E. Kelley, 17 Forest street, Hartford, Conn., for the construction of a one-story-addition to be used for employes' welfare department, and will proceed with work at once. Mylchreest & Reynolds, 238 Palm street, Hartford, are engineers.

Baltimore, Md.—The Fibre Specialty Company has renewed its lease for a term of years on property occupied at 1339-41 Washington Boulevard, and is said to be planning for general expansion in operations.

Minneapolis, Minn.—The Minnesota & Ontario Paper Company has preliminary plans under way for extensions in its news- print mills, to include the construction of additional units and the installation of new equipment for considerable increase in present output. The company is operating four plants in the United States and two mills in Canada, and will develop for a gross output of 200,000 tons of news print paper, and 30,000 tons of sulphite pulp per annum; an important feature of future production will be insulating board, of which about 60,000,000 ft. will be manufactured yearly. The company also has plans under way for extensions in its hydro-electric power plants used for mill operation, operated in the names of the Ontario & Minnesota Power Company, Ltd., and the Rainy River Development Company, and will increase the present output by close to 45,000 hp. To carry out the projects a bond issue of $16,000,000 is being sold.

Philadelphia, Pa.—The Security Bank Note Company, 223 Chestnut street, manufacturer of paper specialties, is perfecting plans for its proposed new plant at Fifty-fifth and Sansom streets, reported to cost more that $125,000, with equipment. Clarence E. Wunder, 1520 Locust street, is architect.

Tonawanda, N. Y.—The Rand-Kardex Company, Inc., recently formed by a consolidation of the Rand Company, Inc., and the Kardex Company, both operating local plants for the manufacture of office filing cards and other card products, etc., has closed negotiations for the purchase of the plant on the Barge Canal terminus, formerly used by the Herschell-Spillman Company, for the manufacture of motors. The property comprises a main four-story building, aggregating about 250,000 sq. ft. of floor area, and will be remodeled and equipped by the new owners for a factory for the production of paper specialties. It is planned to occupy the structure at an early date. James H. Rand, Jr., is president.

Madawaska, Me.—The Fraser Companies, Ltd., St. Johns, N. B., has preliminary work in progress on its proposed local pulp and paper mills, for which a large tract of land was acquired a number of months ago. The plant will comprise a number of one and multi-story units, with power house, machine shop, and auxiliary structures, estimated to cost in excess of $1,000,000, with machinery. It is purposed to commence superstructure work on a number of the buildings during the summer.

Three Rivers, Que.—The Wayagamask News Company, Ltd., has awarded a general building contract to the Foundation Company, Ltd., 224 St. James street, Montreal, Que., for the construction of its proposed new local mill for the production of news print.

New Companies

Troy, N. Y.—The Collar City Paper & Board Manufacturing Company, has been incorporated with a capital of $50,000, to manufacture paper products, paperboard, etc. The incorporators are J. R., J., and H. Symansky. The company is represented by Clinton, Scott & McNamee, Troy, attorneys.

Kansas City, Mo.—The Willis Weber Paper Company, Mulberry and Tenth streets, has been incorporated with a capital of $50,000, to manufacture and deal in paper specialties. The incorporators are Arthur F. Weber and Travers F. Willis.

New York, N. Y.—The Kent Company, has been incorporated with a capital of $50,000, to manufacture and deal in paper products. The incorporators are I. Slote, L. M. Pape, and H. Reineke. The company is represented by Ridgway, Ridgway & Slote, 41 Park Row, New York.

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The Magazine of the Paper Industry

HENRY J. BERGER, Editor

Member A. B. C. Audit Bureau of Circulations

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FOREIGN PAPER TRADE IMPROVES

A marked improvement was shown in the foreign paper trade of the United States during March both as compared with the two preceding months and with March of last year, according to the Paper Division of the Department of Commerce.

Exports of paper and paper products reached a total of $2,046,911, this sum representing a gain of $119,072 over the same month last year and $239,606 and $451,270 respectively compared with January and February, 1925. Imports of paper base stocks were also substantially larger than in the preceding month or in March, 1924, the total value, $9,700,852, exceeding the February receipts by $1,080,942 and the receipts of March, 1924, by $2,559,749. On the other hand, while imports of paper and paper products during March exceeded the receipts of the preceding months by $979,310 and $1,386,040, respectively, the increase compared with the same month in 1924 was relatively small amounting to only $376,581, or 3½ per cent. Summarizing results for the first quarter of 1925, exports of paper and paper products from the United States were 7 per cent less than during the same quarter last year; imports of the same products .3 per cent less; while imports of wood pulp and other paper base stocks increased 27 per cent and of pulpwood by 15 per cent. Exports of paper base stocks from the United States also gained in value, the total $1,491,472, exceeding the first three months of 1924 by 91 per cent.

Exports of nearly all classes of paper and board during March were considerably above those of the preceding month or of March, 1924. A notable exception is found in news print shipments, which amounted to only 2,014,183 pounds, a decrease of 46 per cent compared with the February shipments and of 25 per cent compared with those of March, 1924. On the other hand, exports of book paper during March were 56 per cent greater than during February, wrapping paper 20 per cent, photographic paper 19 per cent, paper board and strawboard 63 per cent, boxes and cartons 84 per cent, and paper bags 84 per cent. With the exception of paper board and strawboard, shipments of all of these items during March were also greater than during the same month in 1924. The largest gains in comparison with March, 1924, are in fine papers and in paper specialties, such as writing paper, carbon paper, envelopes, bristols, sheathing and building paper, toilet paper, and paper bags, due partly to the higher range of prices as well as the increase in the volume of the exports. This upward trend in prices is also noticeable in a number of other items including tissue paper and paper hangings, the value of which during March showed a gain of 11 per cent and 25 per cent in comparison with last year, although the volume of shipments was in each case 6 per cent under those of March 1924.

Exports of paper base stocks during March, 1925, amounted to 4,117 tons of wood pulp, valued at $250,059, and 8,105 tons of rags and other paper stock valued at $317,902, the total, 12,222 tons valued at $567,979, representing an increase in volume of 90 per cent and in value of 102 per cent compared with the same month in 1924.

Imports of the majority of paper and board items during March also showed an upward trend as compared with the preceding month and with March, 1924. Receipts of standard news print, which reached a total of 255,836,683 pounds were 5 per cent above those for the corresponding month of 1924 and 12 to 14 per cent above the February and January receipts. The increased demand has been filled chiefly by the Canadian mills, which furnished 234,024,358 pounds during March, 1925, an increase of 22 per cent over the January shipments, 15 per cent over those for February, and 10 per cent over those of March, 1924. Imports from Norway and Sweden have also shown an upward tendency since the first of the year as compared with the corresponding months in 1924, March receipts from the latter country amounting to 9,982,646 pounds and from the former 3,226,113 pounds, an increase of 7 and 18 per cent, respectively, compared with March, 1924.

Other items in which receipts during March, 1925, greatly exceeded those of the corresponding month in 1924 were: greaseproof and waterproof papers, writing papers, tissue paper, and photograhp paper. Imports of kraft wrapping paper, on the other hand, decreased 40 er cent, of other wrapping paper 84 per cent, and of surface-coated paper 45 per cent. Imports of pulp boards in rolls were slightly under those of March, 1924, a decrease more than offset, however, by the increased receipts of other paper boards. Other decreases occurred in imports of cigarette papers and of hanging paper, each of which fell off 26 per cent during March as compared with the same month in 1924. Receipts of photographic paper, paper boxes, decalcomania, and other printing paper were larger than during March of last year.

With the exception of mechanical ground wood, imports of all classes of wood pulp during March were considerably greater than for the corresponding month in 1924. Receipts of unbleached sulphite increased from 31,970 tons to 53,638 tons, bleached sulphite from 25,090 tons to 28,050 tons, and unbleached sulphate from 20,222 to 24,106 tons. Of the other paper base stocks, receipts of rags, which amounted to 31,899 tons, and of waste bagging and similar stock, which amounted to 4,987 tons, were considerably greater than during March, 1924, while imports of "other pulp" and of old rope and similar stock dropped off slightly. Imports of pulpwood, amounting to 150,418 cords, were also under the March, 1924, receipts.

WAGES IN THE PAPER AND PULP INDUSTRY

The Department of Labor, through the Bureau of Labor Statistics, has just issued Bulletin 365, on wages and hours of labor in the paper and pulp industry in 1923. Summary figures of this Bulletin were published in the Monthly Labor Review for March, 1924.

Data were secured from 199 establishments located in 16 States, and include 35,799 male and 3,262 female, wage earners. Of these, 13,011 were employed in pulp mills, and 26,050 in paper mills. The figures relating to pulp mill employees were limited to mills making pulp by the groundwood, sulphite, or sulphate, processes. The data for paper include mills making book paper, newsprint, wrapping paper and writing paper.

The average earnings per hour in the pulp mills ranged from 27.3 cents in Louisiana to 49.1 cents in Michigan and Ohio. The average hourly earnings in the paper mills ranged from 42.6 cents in the writing paper mills in Wisconsin to 65.9 cents in the book paper mills in New York.

The average full time hours per week in the pulp mills ranged from 50.3 in New England to 67.3 in Louisiana; and in the paper mills they ranged from 48.1 in the news print mills in New England to 59.5 in the wrapping paper mills in Pennsylvania, Maryland, and Virginia.

In addition to tables showing in detail, for each branch of the industry, the average hours per week, earnings per hour and earnings per pay period of employees by occupation, sex, length of pay period, and region, the report contains a brief history of the industry, a description of operations and equipment, a glossary of occupations, and general information relating to changes in wage rates, overtime pay, bonuses, etc.

International Paper Dividend

Directors of the International Paper Company have declared an initial quarterly dividend of 1¾ per cent on the company's new 7 per cent cumulative preferred stock, and they have also cleared up all back dividends (accumulated on this issue prior to October 1, 1916), amounting to 33⅓ per cent on the unstamped preferred stock, of which only about 3 per cent of the original issue is outstanding at this time. The usual quarterly dividend of 1½ per cent was declared on the perferred stock. The dividends are payable as follows: Initial dividend and regular 6 per cent perferred, July 15, stock of record July 7, and accumulated dividends May 18, to stock of record May 11.

"Those stockholders who accepted the settlement offered by the company in 1917," says the statement, "have on the whole fared somewhat better than the stockholders who did not accept such settlement, taking into consideration interest upon the cash received and dividends paid from time to time upon the preferred stock given in settlement, and also considering the present market values of the common and preferred stocks which were received in settlement."

Franklin Paper Co. to Install Shlick Beaters

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE Mass., May 4, 1925.—The Franklin Paper Company is re-constructing its beater room in re-inforced concrete. Four Shlick Patent Beaters are now being installed, operating at high consistency at the enormous rate of circulation of approximately 100 feet per minute.

The Franklin Paper Company manufactures the highest grade of index bristols, white bristol blanks etc., of unexcelled quality. Leo Shlick of Boston is the Consulting-Designing Engineer.

Canadian Exports of Pulp and Paper for March

Canadian exports of pulp and paper in March were valued at $15,752,685 which is the highest monthly total recorded since 1920, when prices were much higher than they are to-day. The report just issued by the Canadian Pulp and Paper Association shows that compared with the February figures, the value of pulp and paper exports last month increased by $4,192,109, of which $3,162,023 was due to larger shipments of paper and $1,030,086 to increased wood-pulp exports.

Details for the various grades of pulp and paper are as follows:

	March, 1925		February, 1925	
Pulp:	Tons	Value	Tons	Value
Mechanical	24,856	$738,677	26,579	$783,344
Sulphite, bleached	19,803	1,441,497	15,145	1,092,985
Sulphite, unbleached	26,981	1,434,383	18,359	986,174
Sulphate	15,547	985,144	11,713	707,112
	87,187	$4,599,701	71,796	$3,569,615
Paper:				
News print	144,411	$10,216,778	103,857	$7,442,348
Wrapping	2,810	379,741	1,009	147,366
Book (cwts.)	3,014	29,631	1,473	14,549
Writing (cwts.)	3,291	28,146	145	1,988
All other	.....	498,688	.....	384,710
	.....	$11,152,984	.....	$7,990,961

For the first three months of this year the total value of the exports of pulp and paper was $38,583,154 compared with $36,567,472 in the corresponding months of 1924, an increase for the current year of $2,015,682. The value of the paper exported in these three months was $27,059,549 compared with $26,366,136 in the first quarter of 1924 and that of pulp $11,523,605 compared with $10,201,336 in 1924.

Figures for the various classes of pulp and paper are given below:

	1st Quar., 1925		1st Quar., 1924	
Pulp:	Tons	Value	Tons	Value
Mechanical	71,869	$2,133,062	50,243	$1,784,320
Sulphite, bleached	49,451	3,605,226	44,798	3,380,422
Sulphite, unbleached	64,998	3,476,598	50,237	2,670,589
Sulphate	37,442	2,308,719	40,198	2,366,005
	223,760	$11,523,605	185,476	$10,201,336
Paper:				
News print	352,922	$25,022,545	320,912	$24,204,932
Wrapping	5,331	753,256	5,123	771,401
Book (cwts.)	6,182	59,437	6,452	49,286
Writing (cwts.)	3,964	35,919	4,362	46,648
All other	.....	1,188,392	.....	1,293,869
	.....	$27,059,549	.....	$26,366,136
Total pulp and paper	.....	$38,583,154	.....	$36,567,472

Pulpwood exports in March were 189,777 cords valued at $1,870,212 an increase of about 20 per cent over the previous month when the total exported was 155,919 cords valued at $1,440,860. Exports of pulpwood for the first quarter of the year were 475,101 cords valued at $4,444,876 compared with 407,114 cords valued at $3,843,160 exported in the first three months of 1924.

Lift Prohibition on Swedish News Print

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 4, 1925.—Secretary of the Treasury Mellon has just signed an order revoking an order issued on March 10, prohibiting the importation of news print paper from the Fiskeby Fabriek A. B. Norrkoeping, Sweden. In a letter to the Collectors of Customs dealing with this matter, the Secretary says:

"The Department is in receipt of a radiogram from Fiskeby Fabriek A. B. Norrkoeping, Sweden, agreeing to submit to a duly accredited agent of the Treasury Department for inspection its books and records pertaining to the market value of its merchandise shipped to the United States.

"In view of the foregoing, you are hereby authorized to permit entry and delivery of all such merchandise manufactured by or for the account of the said company when imported in the United States."

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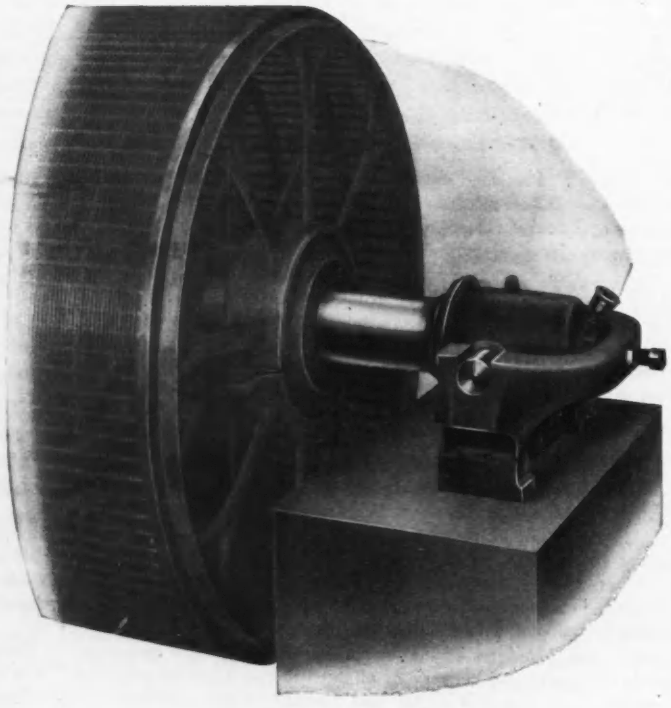

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Conducted by W.G. MacNAUGHTON, Secretary

The White Water Problem from the German Viewpoint*

By A. Janata

The problem of handling and recovering the fiber from waste waters in the paper mill is of long standing. Much work has been done but it still cannot be said that this problem has been satisfactorily solved.

Peculiar Condition of Fibers on Being Made into Paper

It is essential that the individual fibers which compose the paper stock should be entirely separate from one another and free to float by themselves in the water medium, just before they are felted together to form the wet paper web on the wire. This isolation of the separate fibers in the stock is accomplished by dilution with water, which must be present in very large quantities as compared with the fibrous matter contained in it.

Ratio of Water to Fiber

It is rather strange to find so little data in the literature on the ratio of the quantity of water and of fiber. This is due in the first place to the fact that the different kinds and compositions of paper stock require different amounts of water and then again the amount of water that is added to the paper stock depends on the experience gained by the operator and through observation of the way in which the stock de-waters on the wire. In other words the quantity of water to be added is not established by actual measurements.

Contradictory opinions are held on the quantity of water that it is necessary to add to the paper stock. Thus for example long fibered and free stock represents a mixture of fibers and water in which (based on the unit of paper) a comparatively small number of fibers of large volume are found. Hence the amount of water that is mixed with these fibers for the purpose of isolating them from one another is accordingly small. But on the other hand it must be taken into consideration that such paper stock will give up water easily on the wire and hence the danger that the water added will pass through the wire before the fibers have arranged themselves in their proper position in the paper web. It is true that there are means at hand for delaying the draining of the stock by means of shaking devices and change in the inclination of the wire. Nevertheless the strict rule is that an additional amount of water must be added in the case of free stock.

On the other hand the opposite is true of short fibered slow stock. In this case there are a large number of fibers of small volume. Thus the increase in the amount of water added isolates the fibers to better advantage on the one hand, but on the other the draining of the stock is more difficult and furthermore the water adheres more tightly to the individual fibers. For this reason the amount of water added is limited.

Factors Governing the Amount of Water

It is thus evident that the determining factor in the addition of water to the paper stock is not the condition of free movement of the fibers, but consideration must also be taken of the nature of the relation between the water and the surface area of the fibers. Thus for example if the surface area is large, as is the case with slow stocks, then the quantity of water that adheres to the fibers is similarly large. It is for this reason that it takes great skill on the part of the operator to tell just how much water should be added to the stock to give a properly felted paper.

However there has not yet been developed any comprehensive method for testing the stock and arriving at an exact idea of the quantity of water that must be added to it. There does appear to be some relation between the degree of beating and the quantity of water that must be added, but a definite rule relating the two has not yet been evolved.

Data on this Problem

Certain information is available on this subject, but the figures given vary considerably. Thus the variation in the quantity of water is between 100 and 150 liters of water per kilogram of paper stock. In the case of wood pulp for wrapping and printing papers the relation between the paper and the water in the stock ready for the wire is in round figures 1 part to 200. The addition of such large quantities of water is what makes the problem of handling and recovering fiber values from waste waters so hard to solve. It need only be mentioned that in case the waste waters contain only one thousandth part of their weight of fibrous matter, the loss will amount to 20 per cent.

Solving the Problem

There are two ways, from a theoretical standpoint, of solving this problem. The papermaker, the foreman who supervises the operation of the papermaking machine must see that as little fiber as possible, as well as other useful materials, get into the waste waters. Then the waste waters themselves must be run through suitable apparatus for recovering the various values that they contain. There is still a third way and that is that the paper mill use as little water as possible. However this is not always feasible and there are very important and contradictory considerations

*Translated from *Der Papierfabricant* by Ismar Ginsberg.

which have to be taken up into account in determining how much water to use. (The American solution is to reuse the white water. —Ed. Note.)

But the first two considerations are of great significance to every paper mill and it is only the degree of importance that varies in accordance with the nature of the papermaking process.

The Washing Process

If the different processes in which water is used are followed through in regular order, the first one that comes up for discussion is the washing process. Although the papermaker in this connection has to deal with stocks, which for the most part are not digested or only partly so, and which contain fibers of such dimensions that the danger of their being carried away by the waste waters is small,—much smaller than in the case of half stuff or finished pulp, nevertheless the large amounts of water that are added to the stock and then removed from it must be reckoned with.

A concrete example will explain the matter more clearly. We have a washing beater of 8,000 liters capacity. The density of the stock is 2 per cent and the total amount is 160 kilograms. The washing process lasts 3 hours and the water is completely changed every 20 minutes. Hence the total amount of water passed through the apparatus is 80,000 liters and every kilogram of stock comes in contact with approximately 500 liters of water. It is therefore easy to calculate just how great the danger is of losing appreciable amounts of fibers through the removal of an extremely small percentage, figured on the weight of the water.

Prevention of Fibers Getting into the Water

In this connection it seems that the proper thing to do is to prevent the fibers from getting into the waste waters rather than in trying to remove them afterwards. Under these conditions, therefore, it is essential that de-watering is avoided as far as possible, as it takes place in the regular course of the drum washing process. The violent action that the mass of stock is subjected to during the washing process by being flung against the wire screen of the washing drum results in rapid de-watering of the stock. Nevertheless, much valuable material find its way along with the water through the meshes of the wire.

In each case the washing process cost is increased from the standpoint of fiber economy. But there are certain limits beyond which it is not advisable to go in selecting the fineness of wire screen for covering the washing drum. For, when the fineness is too great, the washing process is unduly prolonged which means an increased cost. Then again the meshes of the screen become clogged up with fibers and the passage of the water is hindered. Hence a happy medium must be chosen and an average sized mesh must be selected so that the economy of the process is maintained at the optimum point.

Advantages of Gradual Washing

In this connection, however, it must be remembered that gradual washing of the stock has the natural result of enhancing the removal of the impurities from the fibers. For it is evident that the water is in contact with the fibers for a longer time, but the wash waters, obtained, contain substances which render them unsuitable for further use in the papermaking process. However it is not possible to attain wash waters entirely free from fibrous matter. There is no such thing as washing which does not entail some loss in fiber values, but it is possible to reduce these losses to a minimum.

Sedimentation Tanks

In every stage of paper manufacture where washing and de-watering operations are carried out,—and the papermaking process is just one entire series of such operations, the waste water problem arises. It is solved most advantageously by the use of sedimentation tanks. It is fortunate that it is possible to use such a process under particularly favorable conditions, for it is possible to extend the de-watering operation over a period of time, an opportunity given to the papermaker by no other process now known.

Waste Water from the Papermaking Process Proper

The waste water in the largest quantity in the average paper mill is that from the papermaking machines and the deckers. That the loss of fiber may be reduced through the choice of correspondingly fine meshed machine wires is self understandable. It is a method most commonly employed by papermakers to prevent the loss of fibers and avoid the difficulties of recovering them from the white water.

For example in the case of coarse fiber stock, for machines used in the process of manufacturing chemical wood pulp, it is generally customary to choose coarse wires. In this case there is no danger that the fibers will pass through the wire, and it is of course useless to interfere with the thickening process by the use of fine wires.

On the other hand when thin papers are being made, such as tissue papers, considerable care must be taken to avoid losses of fiber. The beating of this class of pulp is carried so far that the individual fibers are very small and furthermore there is a great quantity of such fibers present. Of course these small fibers have the property of flowing through the meshes of the screen with the back water. For this reason it is essential that fine meshed wires be used. On the other hand the filtering layer which forms on the wire after the stuff has flown over it is of such slight thickness that the draining is satisfactory with fine wires.

Waste Water and Thickening on the Wire

There is a very definite connection between the quantity of fiber contained in the waste waters and the degree of thickening that takes place on the wire. One important condition is the formation of the layer of fibers on the wire at the moment that the water runs through the meshes and leaves it behind in the form of a matted film. The first parts of the mass of fibers that are suspended in the water-pulp mixture that reach the meshes of the wire are those that have a greater relative weight than the remainder of the pulp constituents. These fibers also are of greater volume than the others, and then again, the fillers, are also first to reach the wire which readily explains the large loss of filler. The papermaker has always to reckon with this loss, which varies between 50 to 80 per cent of the total weight of loading matter used.

Then again as the quantity of filler in the pulp can be figured to amount to from 5 to 15 per cent of the fibrous material, it is evident that the weight of the filler on one kilogram of pulp can vary between 50 to 150 grams. The amount of filler carried away by the waste water, on the basis that the ratio between the weights of paper and water is 1 to 200, varies from 0.125 to 0.375 gram per liter when the loss is 50 per cent, and from 0.2 to 0.6 gram per liter at an 80 per cent loss of filling materials.

This figure is further increased,—and by no means in an inappreciable amount,—when consideration is taken of the fact that the quantities of water removed from the wet paper web in the drying operation cannot carry away with it any fillers or fibrous matter. However inconsiderable these amounts may be, it is evident that the content of dry matter in the paper after it has passed between the presses, that is before it enters the driers, is assumed to be on the average 30 per cent, which means that 1 kilogram of paper carries with it 2.3 kilograms of water. This figure is however of little consequence when compared with the 200 kilograms of water that are mixed with the pulp when it first comes on the wire,—a figure which may be varied within but narrow limits in accordance with the character of the stock.

Reduction of the Loss of Filling Materials

Reduction of the loss of loading materials by limiting the amounts removed by the waste waters can be accomplished in certain ways without any great difficulty. This reduction is hard to get by using fine wires for the simple reason that there are many considerations to which attention must be given in selecting the fineness of the

mesh. Therefore better success is attained by the use of other means.

An effective method for accomplishing this suggests itself when the nature of the combination between the particles of the filler and the paper fibers is studied. The fibers are of very small dimensions and their surface area is likewise very small. Hence a close connection between the particles of fillers and the surface of these fibers can only be attained when a proper degree of attraction is exerted by both. The fillers must be used in the condition of maximum fineness so that they are able to cover the greatest possible surface area of the fibers. Hence the finer the filling materials, the less effectively will they be removed by the wash waters that flow out of the pulp and through the wire.

The Fibers

The fibers behave in the opposite manner. The larger the dimensions of the fibers, the less easily do they find their way through the meshes of the wire into the back water. Furthermore the formation of a film of fibers over the wire tends to prevent them from being carried away by the water. Such a condition applies to the operation of fourdrinier machines. But in the case of the cylinder machines circumstances are different for here the film of fibers is formed not in the direction of the force of gravity but in the direction of the flow from the vat into the interior part of the cylinder. This direction is not vertical but for the most at an angle with the horizontal in excess of 90 degrees. Hence the action of the stream of stock is directly opposite to gravitational force.

From what has been said it follows that the fibers which have been subjected to greater disintegration are the ones that are found for the most part in the waste waters, which must be taken into consideration when attempting to recover the fiber.

Furthermore it is just mentioned that in the operation of the cylinder machine the loss of filling materials is smaller than in the case of the fourdrinier machine for the reason that the current of stock can bring little or none of these materials on to the wire, which are not firmly fixed to the fibers themselves. In other words loose fillers are to be found only deposited in the bottom of the vat. It thus follows that the use of the cylinder machine is particularly advantageous in the manufacture of papers that are heavily weighted with filling materials.

Additional Advantage of the Cylinder Machine

An additional advantage of the machine is the elimination of suction boxes which aid particularly in bringing the fiber through the meshes of the wire into the back water. The use of the modern type of high speed fourdrinier machines with a complete battery of suction boxes gives rise to the question whether or not the increased loss of fiber, due to the operation of the machine at high speed, could not be circumvented by the use of greater length of wire and a reduction in the suction effect.

A further opportunity is afforded both fibers and filling materials to be carried away by the waste water by the draining effect which takes place in addition to the natural thickening which occurs through the wire, the suction effect of the suction boxes and the squeezing out of some water on the couch rolls in the wet part of the papermaking machine.

Collecting the Waste Waters

Equipment must be available in the paper mill to avoid allowing the waste waters to run into the sewer before they have passed through fiber recovery apparatus. For example, waters from the washing process, should be kept separate from the waters from the regular de-watering operations in the manufacture of paper.

There are no great technical difficulties involved in keeping these waters separate. It is only a question of arranging a proper piping system so that the waste waters from different apparatus in the plant are led into the proper purification apparatus. It must be remembered as well that the quality of the stock recovered from some of the waters may not be proper for manufacture of the class of paper made from the original pulp but may be suited for making lower grades. Hence in handling the waste waters consideration must be paid to the character of materials they contain.

Recovery Apparatus

The apparatus employed in recovering fiber and filler are constructed on the following principles, filtration, sedimentation or a combination of the two. The first type of recovery apparatus is represented by the simple cylinder or the longer conical shaped cylinder or drum covered with a fine meshed wire cloth. Settling tanks, provided with mechanical transporting devices or without these aids, are examples of the sedimentation apparatus. Then there are the settling apparatus provided with screen bottoms which are examples of the third type.

Screen Bottom Tanks

These last type of machines are so built that the speed of flow of water through them is small, at a minimum. At the beginning of the process the fibers are removed by simple filtration and the thickness of the layer of fiber on the screen increases to such an extent that finally the filtering action is at a minimum. Then the separation of the fiber from the back waters takes place for the most part by pure sedimentation. This therefore implies that the dimensions of the apparatus in which the process is carried out must be sufficient.

Such apparatus is cheap to build and requires but little attention, apart from the proper emptying. No mechanical drives are necessary. When the dimensions are made sufficiently large, the waters that flow out of them are perfectly clear, and furthermore the recovered materials are in such a condition that they can be directly removed from the apparatus and conveyed about the plant and used in the process. Because of the low first costs it is possible to build them in large sizes so that they can take care of large volumes of waters at periodical intervals. The care taken in the recovery process determines to a large degree the character of the material recovered, whether or not it contains much impurities, the ease with which it thickens on the wires, etc. Experience teaches however that every well conducted paper mill can recover fiber from the waste waters in the proper condition to be used in the manufacturing process.

While these methods are suitable for the recovery of fiber that does not possess much value, special treatment is necessary in the case of those waters that hold fiber of finer quality. These are collected directly from underneath the wire and are not led into sewers for then there is always the danger that they will become contaminated with oils and dirt.

Sedimentation

A great many different types of apparatus have been designed during the past few years for taking care of these waste waters, which separate the valuable and usable ingredients by the action of sedimentation in a particularly effective manner. The save-alls, as they are called, are commonly built in the form of a funnel, and the flow in them is from the bottom to the top, while the speed is correspondingly reduced and the heavier ingredients, the fillers and the fiber, tend to fall to the bottom. The effectiveness of this separation is such that the waste water flows out of the apparatus containing as little as 0.005 gram of fiber per liter. The loss of fiber is thereby reduced to the proportion of 1 in 1000, or 1 pound of fibers for every 1000 pounds of paper manufactured.

Reworking the Recovered Materials

The possibility of reworking the materials that are recovered in this manner is particularly favorably influenced by the fact that the recovery process has a direct connection with the papermaking processes in general. The fact that specialization in the paper industry is becoming increasingly prevalent leads to continuous manufacturing periods of as uniform and as long a duration as possible. This renders it easier to utilize the thickened white water from the sedimentation tank in the beaters and on the papermachines. The

funnel filter makes it possible to process a variable quantity of white water that contains fiber, but it works to the best advantage when a definite and constant volume is being added and simultaneously withdrawn from it.

It has been mentioned before that the fibrous material that is found in the white water is mostly that which has been strongly disintegrated, and for this reason the recovered material is composed of very small fibers. These fibers are moreover mixed with a considerable amount of filling material. In accordance with this character of the recovered stock, it may be expected that its slowness will not give a paper with the same mechanical strength, when mixed with other pulp, as one in which the structure is regular. In other words it may be expected that the paper made from the composite pulp, containing a proportion of this slow recovered pulp, will not be as strong as the paper made from straight new pulp. This condition must therefore be taken into consideration when operating save-alls of this character.

Importance of the Quality of the Pulp

When no attention is paid to the fact that the character of the pulp and hence the ease with which it thickens on the wire are markedly affected by the addition of recovered stock the regular course of the paper process will be disturbed. It is necessary to add the recovered stock in a regular fashion to the stock being prepared in the beater. This operation should not be interrupted and the amount of recovered stock used in proportion to the regular stock employed must remain fixed at all times. When these conditions are observed no trouble will be found with the operation of the papermaking process.

It has been seen that it is an important matter to recover the fiber from the white water, but it is just as important to see that nothing is left undone to prevent the fiber from getting into the waste waters. Mention remains to be made of the wet broke from the presses and the couch rolls which is obtained when breaks occur.

It is patently evident that it would not be economical to operate the save-alls in such a manner that they are overloaded for part of the time and then operated at lower than normal load at other times. What would result would naturally be flooding of the inlet pipes leading to the machine, their stoppage and the outflow of waste water from which the fiber had not been properly removed. This would then result in the admixture of varying weights of the recovered stock with the new pulp and disturbances in the operation of the papermachine. In fact that entire papermaking process and all its auxiliary parts will be interrupted and seriously disturbed.

It thus follows that the wet broke from the presses and the couch rolls can be taken care of to much better advantage in a box placed underneath the papermachine. These boxes are provided with false screen bottoms and the stock recovered in them is returned to the beaters. The collection of the waste in this manner entails a certain amount of additional work on the part of the machine crew, and also requires separate handling of the waste so that it does not become contaminated with impurities as it is removed from these boxes and taken to the beaters.

But when the material is handled in this way all danger of overloading the passages that lead to the save-alls is removed. This is a matter that would always be guarded against, as when it does take place, losses of fiber occur. It must be remembered that this can take place just as much by adding too much fresh water as by allowing too much white water containing high concentrations of fiber to flow into them. It therefore follows that the more concentrated the white waters are, that is, the greater their fiber and filler content, the more easily is that content precipitated. The following process plays an important part in this case.

What Happens in the Settling of the Fiber and Fillers

Not all of the individual fibers are of the same dimensions, and hence they do not all weigh alike. Just as the paper stock is a mixture of most heterogeneous elements as far as its volume is concerned, so is the material that is contained in the waste waters and that finally settles out of them. The result is that as these materials move around in the white water in the save-all, those ingredients that are heavier tend to sink first towards the tip of the funnel at the bottom, and they also carry with them the lighter constituents. Hence these lighter particles which are first brought near the bottom as the current of waste water enters the apparatus and which have a tendency to be carried along to the top of the save-all when the current is reversed and the settled water is removed from the machine, are seized by the coarser particles and being held firmly by them sink along with them to the bottom.

As the waters rise, the area of the cross-section increases and the speed is correspondingly diminished. At the same time the light fibers lose their tendency to remain suspended in the waste waters. There is therefore a limit at which the upward movement of the fibers ceases, and their settling has not yet commenced. In other words there is a certain place where the fibers are at rest, so to speak. This holds good as well for the heavier fibers which form a filtering layer at that point and which catch the lighter fibers and prevent them from rising further in the mass of white water. This method of operation characterizes a certain class of save-alls that are built on the funnel design, in contradistinction to another type which the known as settling save-alls.

Effect of Concentration of Fiber in the Waste Paper

It need not been explained that the process, which has been described takes place more effectively when the concentration of fiber in the white waters is greater. This then makes quite evident the need of avoiding too great dilution. Reducing the dilution as far as possible is also important from other standpoints as well, as for example, the saving in power required to pump the water. Hence it is important that the clear water is not mixed with that containing considerable fiber. When such control of white waters is effected in the paper mill, it will be found that a considerable part of the difficulties involved in both the handling and their treatment will be removed.

Bonus System

SPECIAL INQUIRY NO. 25

The question of a bonus system for our mill employes is being considered and we find quite a variety of opinions regarding the whole subjest. We would like you to circularize the members of the Technical Association for a discussion of the subject to get their opinions and the benefit of their experience.

It is recognized that many bonus systems have been unsuccessful and that almost any kind is difficult to establish. It should be possible, however, to develop a system that will reward a man for extra individual effort with advantage also for the mill. Helpful suggestions will be welcomed.

A MEMBER.

Many members have given thought to this subject and some have had considerable experience with some form of bonus system. I would understand that the question is not one of profit sharing, thrift inducement, mutual benefit association or cooperative welfare, but only some form of bonus whereby extra effort on the part of the employes might be stimulated for an increase in production or a decrease in the cost of manufacture.

This is a subject on which a large number of intelligent and thoughtful responses are expected.

A transcript of all replies, in blank, will be distributed to those who participate in the discussion.

THE SECRETARY.

Some Sulphite Mill Calculations

IV. Measuring Fluid-Flow with Orifice, Venturi or Pitot*

By W. B. VanArsdel, Brown Co., Berlin, N. H.

Measurement of flowing gases or liquids in the sulphite mill will usually be made by means of an orifice, a Venturi throat or a Pitot tube, or by means of a weir. Design and use of the first three of these will be discussed in the present paper, reserving the subjects of weirs for separate treatment. Each of these instrumentalities has a field within which it is the most convenient or most accurate device for making such measurements.

Orifice

Relatively small quantities of gas or liquid flowing in a pipe-line are most easily measured by means of an orifice inserted in the line. Little equipment is needed. A thin plate, having a sharp-edged circular hole cut through it, is clamped between two flanges in the line; the pipe is tapped above and below the orifice for insertion of static-pressure tubes which connect to opposite limbs of a suitable monometer. Certain precautions must be observed, however; the orifice should be truly circular and accurately centered in the pipe; the static-pressure openings should be flush with the wall of the pipe (no inwardly projecting tube or fin) and the upper one should be 2½ pipe-diameters and the lower one 8 diameters distant from the orifice. Calculation also becomes more precise if the diameter of the orifice is not more than one-fourth of the diameter of the pipe; this condition may be realized by enlarging the pipe to chambers of the requisite diameter above and below the orifice.

Resistant materials such as glass, lead, bronze, or silver may be used in corrosive gases or liquids, but if some corrosion is inevitable, the orifice should be periodically cleaned and its diameter redetermined.

There are two important limitations to the use of the orifice. It is manifestly impractical in a large line such as a stack, and the entire pressure-drop across it is lost. If a gas is flowing under only an inch or two of water pressure, it may be very undesirable to lose a considerable proportion of this pressure in the meter.

The fundamental orifice equation is:

$$u_2 = c \sqrt{2g\ (\Delta h)}, \quad \ldots\ldots\ldots\ldots \quad (1)$$

where u_2 is the velocity in the orifice, in feet per second; Δh is the drop in pressure, in feet head of the gas at the downstream density; and c is a constant whose value depends upon the ratio of orifice-diameter to chamber-diameter, approaching a lower limit of 0.61 as this ratio falls below 0.25 or 0.20. The value of c as a function of this ratio of diameters is given in Fig. 1. Equation (1) may be rewritten in terms of practical units for gases or liquids as follows:

$$Q = 24.0\ cd^2 \sqrt{\frac{\Delta P_1}{W}}, \quad \ldots\ldots\ldots\ldots \quad (2)$$

$$G = 5.67\ cd^2 \sqrt{\frac{\Delta P_1}{S}}, \quad \ldots\ldots\ldots\ldots \quad (3)$$

where Q is the quantity of flow in cubic feet per minute at downstream conditions, d is the diameter of the orifice in inches, ΔP is the pressure-drop across the orifice in inches of water, and W is the density of the gas in grams per liter; or G is the quantity of flow in gallons per minute, and S is the specific gravity of the liquid.

Equations (2) and (3) are solved graphically in Fig. 2. The manner of use will be evident if one follows the dashed lines, which give the solutions of the following examples:

A. Orifice-diameter 4.10 inches, pipe-diameter 6 inches, gas-density 0.7 grams per liter, pressure-drop 1.50 inches of water; then flow = 540 cubic feet per minute.

B. Same orifice, pipe and pressure-drop; specific gravity of liquid, 0.7; then flow = 130 gallons per minute.

The accuracy of Fig. 2 is about ± 4%. For more precise results, use Fig. 1 and equation (2) or (3).

Venturi Throat

If conditions are such that a fairly high pressure-drop is desired for purposes of measurement, but as little as possible of the original fluid-pressure is to be permanently lost, the Venturi throat is probably the best measuring device. This device consists of a *gradual* narrowing down of the cross-section to a constriction, and a gradual enlargement again to full cross-section. Static-pressure openings are put in the pipe upstream from the beginning of constriction and in the throat, and are connected to opposite limbs of a manometer. The total angle of the upstream convergence should not exceed 25°, and the total angle of the downstream divergence should not exceed 7°; the throat-diameter may be from ¼ to ½ of the pipe-diameter, and the length of the throat should not exceed its diameter. If possible, sections near the throat should be carefully machined and finished.

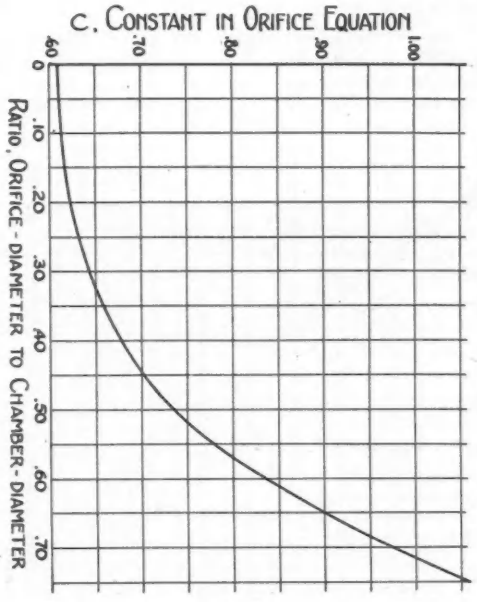

Fig. 1.
Value of Constant in Orifice—Equation.

Under these conditions the Venturi meter will give measurements of good accuracy without appreciable permanent loss in pipe-line pressure. It would seem that the instrument deserves wider use than it usually receives.

The fundamental equation of the Ventri meter is:

$$\sqrt{u_2^2 - u_1^2} = c \sqrt{2g\ (\Delta h)}, \quad \ldots\ldots\ldots\ldots \quad (4)$$

*Previous installments of this series appeared in "Paper" as follows: 1. Conversion Factors, Dec. 27, 1923; 2. Gas Volumes, Mar. 6, 1924; 3. Resistance to Fluid-Flow, Oct. 16, 1924.

where u_1 is velocity in the pipe upstream, c is a constant with a value of 0.98 for a well-made throat, and the other symbols are as before. Equation (4), in practical units, has the following forms:

$$\text{Gases: } Q = 23.5 \sqrt{\frac{\Delta P}{W\left(\frac{1}{d_2^4} - \frac{1}{d_1^4}\right)}}, \quad \ldots\ldots\ldots (5)$$

$$\text{Liquids: } G = 5.56 \sqrt{\frac{\Delta P}{S\left(\frac{1}{d_2^4} - \frac{1}{d_1^4}\right)}}, \quad \ldots\ldots\ldots (6)$$

where d_1 is the pipe-diameter, in inches; d_2 is the throat-diameter, in inches; and the other symbols are as before.

Equations (5) and (6) are solved graphically in Fig. 3. Following the examples illustrated by dashed lines in the figures,

C. Throat-diameter 3.50 inches, pipe-diameter 6 inches, density of gas 5 grams per liter, pressure-drop 0.20 inches of water; then flow = 62.5 cubic feet per minute.

D. Throat-diameter, pipe-diameter and pressure-drop as above; specific gravity of liquid, 5.0 (if it were possible); then flow = 14.5 gallons per minute.

The accuracy of Fig. 3 is about ± 4 per. For more precise results, solve equation (5) or (6) directly.

Pitot Tube

Under certain circumstances the Pitot tube is practically the only available measuring device. For instance, there is no other good means for measuring the flow of gases in large stacks. The Pitot takes several forms commercially but in essence it is a small tube which can be inserted into the stream so that its opening faces the moving fluid. It is connected to one limb of a manometer, and the other limb of the manometer is connected to a static-pressure tap. The difference in pressure recorded by the manometer is the velocity-head, or "impact-head" of the fluid at the impact opening. Pitot tubes are usually made up as two concentric tubes, one containing the static-pressure openings on its sides, the other open at the end for impact pressure; and the double tube is bent at right angles near its end, so that it can be inserted through the wall of the conduit into the stream.

The velocity of fluid in a conduit of course varies from center to walls. If the flow is turbulent but undistorted by nearby bends or changes in cross-section, the average velocity will be approximately 0.8 of the velocity at the center-line; but in most actual cases it will be necessary to explore the conduit with the Pitot tube, plot a velocity "map," and determine the mean velocity by some process of averaging.

The fundamental equation of the Pitot tube is as follows:

$$u = c\sqrt{2g\,(\Delta h)}, \quad \ldots\ldots\ldots (7)$$

where u is the velocity at the impact-opening, in feet per second, and

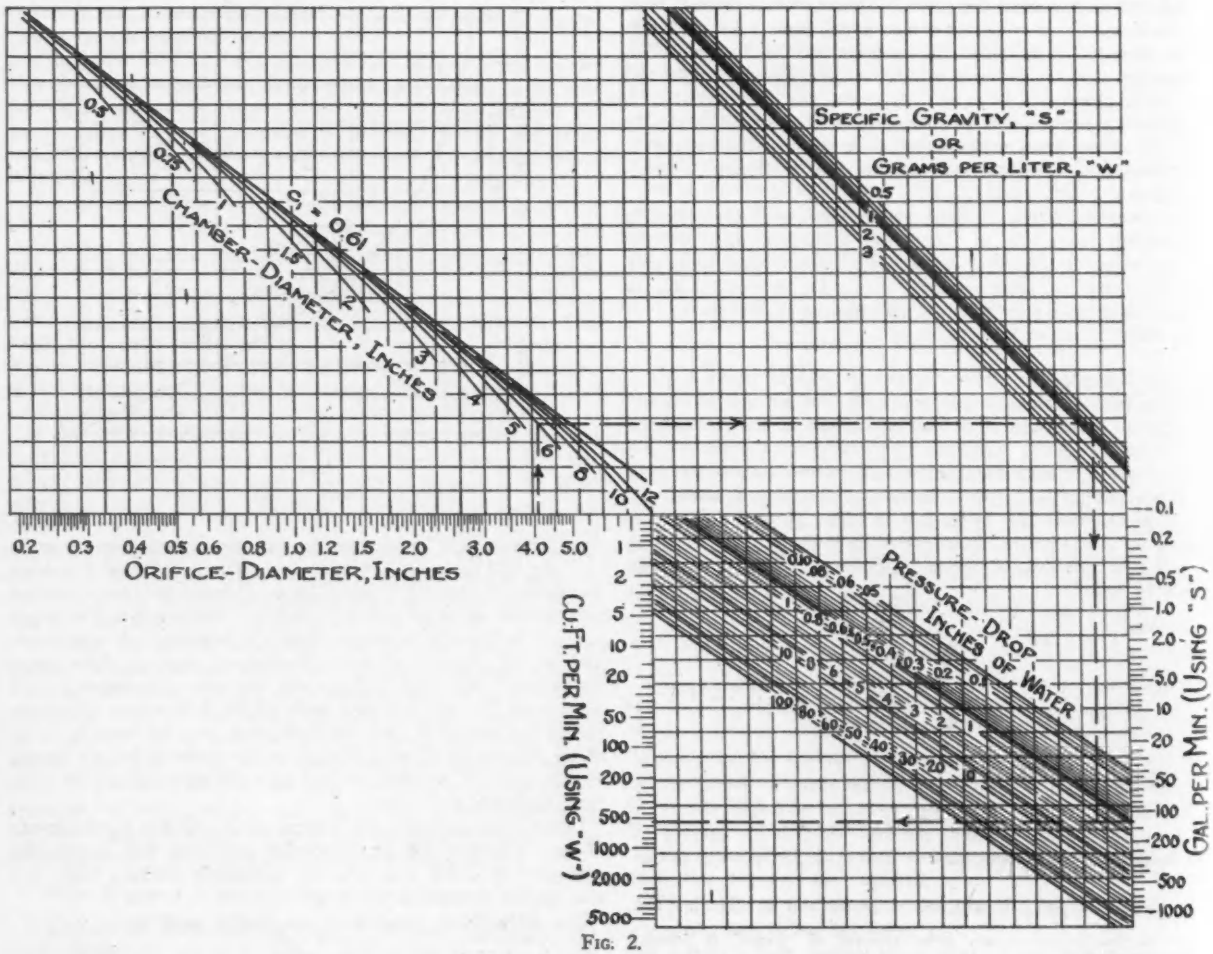

FIG. 2.
Flow Through Circular Orifice.

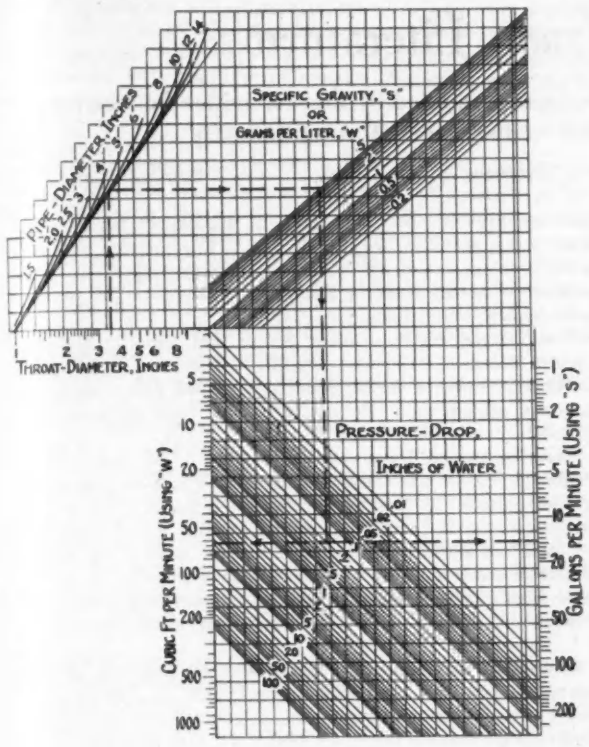

FIG. 3.
Flow Through Venturi Throat.

c is nearly unity for a well-designed Pitot. This constant may fall as low as 0.85 if the design is poor, but the standard forms may be assumed to operate with a constant of 0.98, which value is accordingly used in the following discussion.

Changing the factor Δh to practical units, equation (7) becomes, for gases:

$$u = 71.8 \sqrt{\frac{\Delta P,}{W}} \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (8)$$

where ΔP is the difference between impact and static pressures in inches of water, and W is the density of the gas in grams per liter. The solution of equation (8) is given graphically in Fig. 4. Taking the example represented by the dashed lines, a difference in pressure of 0.65 inches of water, with a gas of density 1.0 gram per liter, corresponds to a gas-velocity of 57 feet per second. The accuracy of Fig. 4 is about $\pm$ 2 per cent.

One serious drawback of the Pitot tube is the fact, evident from Fig. 4, that unless the gas-velocity is over 50 feet per second, the pressure-difference is too small to read accurately from an ordinary manometer. An instrument has been developed for indicating the air-speed of aircraft, consisting of a combination of Pitot tube and miniature Venturi throat. The combination produces a much higher pressure-difference for a given gas-velocity, but apparently each such instrument must be calibrated in air-currents of known velocities.

References:

"Chemical Engineering," Walker, Lewis and McAdams.
"Measurement of Gas by Orifice Meter," Westcott.

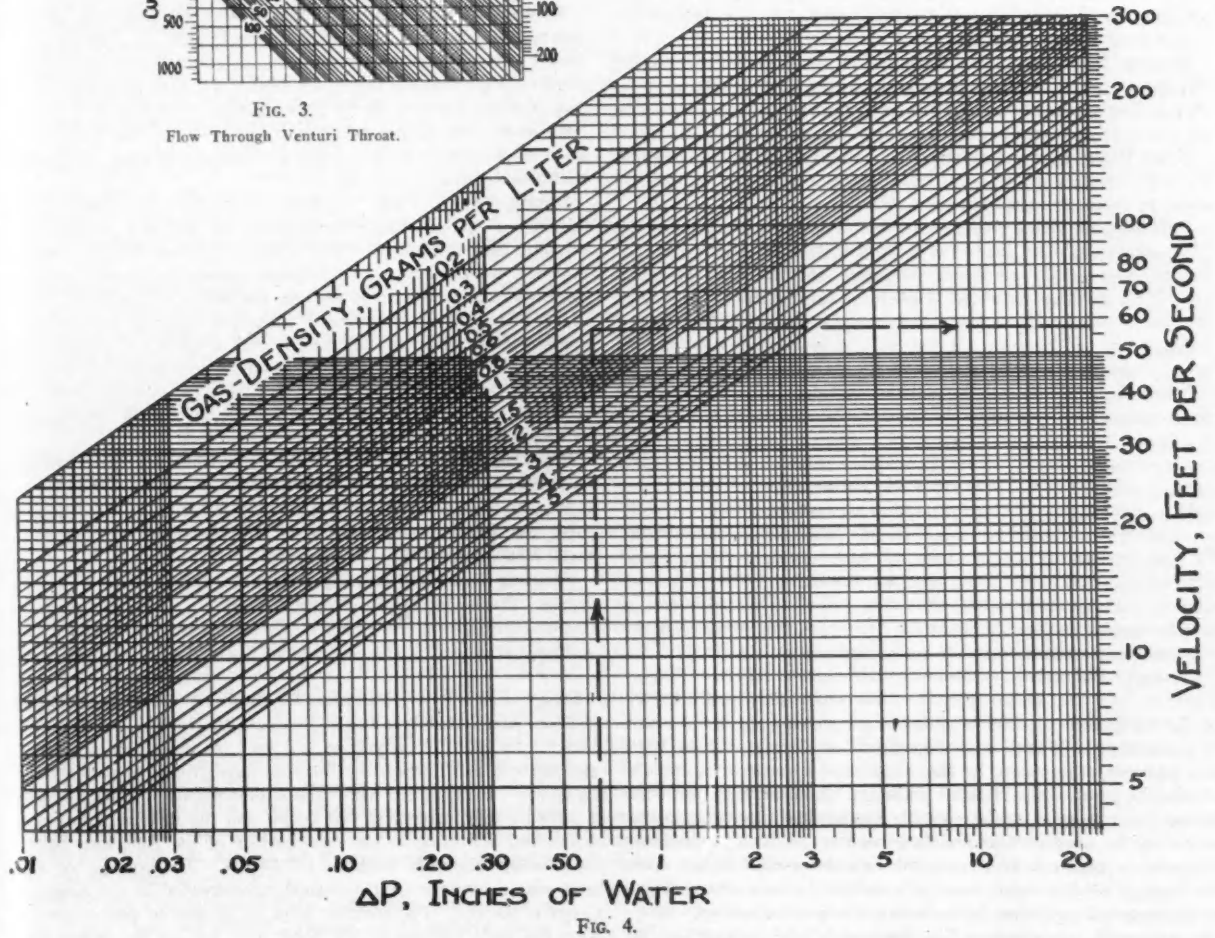

FIG. 4.
Gas-Velocity vs. Pilot Tube Reading.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

Clarence J. West, Chairman

Alkaline Processes

Physical Chemistry of Cellulose Manufacture. Svante Arrhenius. *Zellstoff U. Papier* 4, 182-184 (Aug. 1924). The reactions attending the cooking of wood with sodium hydroxide, sodium sulphide and sulphate liquors are typically monomolecular. The reaction velocity is accordingly proportional to the concentration of the solutions. At 140° C. the reaction velocity for the solution of the wood incrustations is about 28 times that of cellulose, at 170° C. ratio is reduced to 8.5, while at 270° C. the reaction velocities are identical, which means that both the incrustations and the cellulose dissolve at the same rate. The velocity is somewhat greater with sodium sulphide solution and sulphate liquor than with the sodium hydroxide solution as far as the wood incrustations are concerned, but the converse is true for cellulose. This explains why a purer and more valuable pulp is produced by treating wood with sulphide or sulphate liquors.—J. L. P.

Various Types of Cookers Used (for Alkaline Cooking of Rags and of Wood). Raffaele Sansone. *Papeterie* 46, 246-253 (Mar. 25, 1924); 342-346 (Apr. 25, 1924); 542-549 (June 25, 1924); *Paper* 34, No. 13, 557-559, 561-562 (July 17, 1924). A brief general description of various types.—A. P.-C.

Making Paper from Pine Stumps. R. H. Stevens. *Paper* 34, 901-903 (Sept. 4, 1924). A description of the Calcasieu Paper Co.'s mill at Elizabeth, La., using J. R. Carter's process for the production of soda pulp and simultaneous recovery of turpentine.—A. P.-C.

Kraft Paper Made in the South. R. H. Steven. *Paper* 34, 795-797 (Aug. 21, 1924). Outline of recent progress in mill equipment, processes and production.—A. P.-C.

Polysulphide Pulp. Alfred Tingle. *Paper* 34, No. 15, 653-654 (July 31, 1924). The digester is charged with wood chips (shavings, sawmill waste, etc.) and 66.6 lb. of sulphur and 133 lb. of quicklime (or 176 lb. of slaked lime) per 1,000 lb. of air dry chips. The chips are just covered with water, and the charge is cooked with direct steam at 65 to 75 lb. per sq. in. for 10 to 12 hr., no relief of pressure being required after the air has been completely expelled. The softened chips can be stored (without washing) without danger of deterioration for a considerable time. They are crushed or beaten in an edge runner or in a beater with rather blunt, bronze tackle, in the presence of a dilute acid, preferably sulphite waste liquor, to remove calcium salts. After beating to the required degree, the pulp is dumped, washed, and treated in the usual manner. A yield of about 70% on the dry wood is obtained. The pulp is unbleachable, but can be used for strong wrapping papers. Most of the lignin originally present in the wood fiber and remaining in the pulp is so altered as to be much more stable than before to air and light, a sample exposed to direct sunlight for over three months showing no signs of deterioration other than a slight bleaching.—A. P.-C.

Calcium Polysulphide Pulping Process. Alfred Tingle. *Paper* 34, 1000-1002 (Sept. 18, 1924). The author puts forth a theory of the mechanism of alkaline processes of cooking wood, in which he considers that water, at a temperature considerably above 100°, and rendered more active by the presence of caustic soda, rapidly attacks the intercellular material, while the alkali combines with the lignin, to form more or less soluble compounds according to the nature of the alkali. With the lime cooking processes subsequent treatment is required to remove the lime from combination with the lignin, the latter being practically completely removed from association with the cellulose with alkaline precipitants, and only partially with acid precipitants. The function of the sulphur in the purphate, Drewsen's polysulphide (U. S. pat. 996,225, Jan. 27, 1911), and Tingle's processes, are also discussed. Experimental evidence is adduced in support of the hypothesis, more particularly as regards removal of the line from the lignin addition compound by treatment with sulphite waste liquor.—A. P.-C.

Manufacture of Pulp from Straw and Similar Materials. Charles Weygang. Ger. pat. 400,524. *Papierfabr.* 22, 430 (Sept. 14, 1924). Straw or similar material is treated with a liquor consisting of calcium hydroxide, mineral oil, and alkali salts, as sodium carbonate, for 12 to 24 hr. in the cold.—J. L. P.

Manufacture of Pulp. C. A. Braun. Ger. pat. 400,858. *Papierfabr.* 22, 430-431 (Sept. 14, 1924). Pulp is made from grasses and like material by treating the chopped pieces in a digester at a temperature of 100 to 172° C. with a cooking liquor made from soluble alkali silicates and sulphites with or without the addition of caustic alkalies, alkali carbonates or monosulphides; or a liquor made from a mixture of alkali silicates and monosulphides with or without the addition of caustic alkalies or alkali carbonates.—J. L. P.

Conversion of Wood or Plant Stalks to Pulp or Threads. Kurt Jochum. Ger. pat. 396,284. *Papierfabr.* 22, 274 (June 15, 1924). Calcium hydroxide and soda are added in such quantities to wood or plant material that, aside from the causticizing effect of the soda and the digestion of the plant material with sodium hydroxide, the liquor is regenerated with the excess of lime. The finely-divided wood or plant material that, aside from the causticizing effect of the soluble substances.—J. L. P.

Strong Esparto Pulp. Cellulose et Papiers. Fr. pat. 570,280. In order to get a strong pulp, suitable for use as a substitute for sulphite, esparto is cooked at, or slightly below 100° C., without pressure, in a fairly strong solution containing caustic soda and sufficient organic matter to restrain the action of the alkali on the grass. Cooking is discontinued when the material is nearly, but not completely, disincrusted, and the pulp is given a thorough washing. In this condition it may be stored for any length of time, and before using it is treated with a hot alkaline solution, preferably soda ash, the treatment being such that the subsequent bleaching can be effected with 10% of bleaching powder.—A. P.-C.

Washing Brown Stock in Soda Pulp Mills for Bleachability. G. K. Spence. *Paper Ind.* 6, 1067, 1069 (Sept. 1924). Brief discussion of the various methods used or proposed from the standpoint of rapid and efficient removal of soda with minimum dilution of the black liquor.—A. P.-C.

Washing Stock and Beating Pulp for Paper. John W. Brassington. *Paper* 34, 845-847 (Aug. 28, 1924). A reply to M. L. Griffin's criticism of the author's original articles describing a pulp washer and a beating engine based on the use of centrifugal force.—A. P.-C.

Study of Refractory Materials for Sulphate Smelting Furnaces. William McC. Walker. *Paper Trade J.* 79, No. 8, 43-46 (Aug. 21, 1924). Samples of magnesite, chrome, soapstone, silica, diaspar, and five kinds of first quality firebrick were ground to pass through an 80 mesh sieve, mixed with various proportions of black ash from a sulphate mill, made into test cones, and the melting points were determined according to the specifications of the American Society for Testing Materials methods (C 24-20). The porosity of each brick was determined by the method recommended by the American Ceramic Society. The melting point of magnesite and of chrome were but little affected by the black ash; but all the others were

lowered considerably with as little as 10% black ash. The porosity varied from 18 to 34%; so that the amount of black ash absorbed under operating conditions would considerably lower the melting point, except with magnesite or chrome. Soapstone and densely burnt building brick are both sufficiently resistent to the action of black liquor under cooking conditions to be satisfactory for lining digestors.—A. P.-C.

Black Liquor Recovery. E. G. Goodell. U. S. pat. 1,499,363, July 1, 1924. The liquor is first concentrated to a density of 30° to 40° Bé., and is then sprayed into a chamber maintained at such a temperature that the liquid constituents are volatilized. The vapors are conducted into a condensing chamber, and are subsequently separated or purified by fractional distillation or other known processes; and the solids which settle to the bottom of the atomizing chamber are drawn off, dissolved in water, filtered to separate the carbon, and worked up as usual into cooking liquor. Any uncondensable gases are drawn off, and burnt if they are combustible. A suitable apparatus is described.—A. P.-C.

Use of Carbon from Black Liquor Recovery. C. B. Jacobs, assignor to E. I. du Pont de Nemours & Co. Inc. U. S. pat. 1,492,034, Apr. 29, 1924. Adsorptive carbon from bleached incinerated or merely calcined black liquor is used as a reducing agent in sodium cyanide manufacture and in other reactions. A charge for sodium cyanide manufacture by reaction with nitrogen may be formed of 40% soda ash, 40% reactive charcoal from black ash, 15% iron oxide and 5% sodium fluoride. Carbon from cellulose manufacture is also adopted for reducing zinc oxide and for other reduction reactions.—A. P.-C.

Recovering Alkali Salts from the Flue Gases in the Manufacture of Sulphate Cellulose. E. S. Sandberg and G. Sundblad. Swed. pat 54,468, May 2, 1923. The gases are subjected to an electrical precipitation process immediately after they have passed the steam generator but not before the economizer system.—C. J. W.

Recovery of Soda from Esparto Black Liquors. W. M. Wallace. Eng. pat. 217,468, Aug. 20, 1923. Black liquor from the cooking of esparto grass is evaporated to about 60° Tw. (specific gravity 1.30) and the residue is treated in a rotary furnace, the ash issuing from the latter being burnt on a traveling grate and thereby completely freed from carbon so that it may be causticized directly.—A. P.-C.

Regenerating Black Liquors. J. D'Ans. Eng. pat 217,685, Apr. 6, 1923. Black liquor is purified by heating under pressure, in the presence of a catalyst, with oxidizing agents, such as chlorates, hypochlorites, or salts of nitrogen-oxy-acids. For example, a liquor containing about 14% of caustic soda and wood gum impurities is purified by heating at 140° to 180° C. for 4 hr. with sodium nitrate in presence of carbon or iron oxide, or with sodium chlorate in the presence of copper (wire netting). The amount of oxidizing agent used is one and a half times that necessary for complete oxidation of the impurities and in the former example the oxidation may be promoted by the introduction of nitrogen oxides.—A. P.-C.

Black Liquor Recovery Process. J. E. Plumstead, assignor to Jessup & Moore Paper Co. U. S. pat. 1,500,890, July 8, 1924. The rotary incinerator is heated by means of pulverized fuel, preferably dried carbon obtained as a waste product in dissolving the black ash. The flame is regulated so that the hottest part of the incinerator shall be reached by the black liquor when it is in a fluid or semi-fluid state and before it reaches the discharge end of the incinerator. In this manner, by the time it has been converted into black ash the hottest part of the furnace has been passed, and there is little danger of melting the salts of the soda sulphur type, which have a lower melting point than the medium carbonate.—A. P.-C.

By-products from Sulphate Pulp Processes. J. Armas Helin. Paper Ind. 6, 882d, 885, 887 (Aug. 1924). A brief description of the Bergstrom and Hellstrom process for the recovery of sulphate turpentine and of rosin oil.—A. P.-C.

Process for the Production of Pulp, and Rosin, Turpentine, etc. Andreas Biffar. Ger. pat. 400,857. *Papierfabr.* 22, 417-418 (Sept. 7, 1924). The rosin, turpentine, etc., are recovered from the digester liquids and gases by a suitable arrangement of precipitating and condensing apparatus.—J. L. P.

Chlorine Process.

Chlorine in the Manufacture of Paper Pulp. Clarence J. West. *Paper Trade* J. 79, No. 14, 43-44 (Oct. 2, 1924). A list of important references on the deVains and Cataldi-Pomilio processes of producing paper pulp by means of chlorine.—A. P.-C.

Commercial Manufacture of Pulp by the Chlorine Gas Process. Umberto Pomilio. *Pulp & Paper* 22, 944-946 (Sept. 11, 1924); 966-969 (Sept. 18, 1924). A review of early attempts at the commercial production of chlorine pulp and the more recent work of Cataldi, with a description of the Naples plant where the Cataldi-Pomilio process has been used on a commercial scale for the last two years, and a discussion of the quality of the pulp produced and the value of the process from an economic standpoint.—A. P.-C.

Continuous Chlorination by Means of Nascent Chlorine. A. R. de Vains and Raymond Fournier. *Pulp & Paper* 22, 757, 772 (July 24, 1924). A polemical discussion of the claims of French pat. 556,183 (which is the same as Can. pat. 237,548, Feb. 5, 1924, and U. S. pat. 1,500,060, July 1, 1924).—A. P.-C.

Chlorination of Cellulose. Ardisson de Perdiguir *Chemie Et. Indus.* 11, 1086-1090 (June 1924). Polemical against Pomilio—A. P.-C.

Chlorine and Cellulose: Present Status and Future Possibilities of the Industry. Umberto Pomilio. *Chimie Et. Indus.* 11, 1091-1092 (June 1924).—A. P.-C.

Criticisms of the De Vains Process. James Strachan. *World's Paper Trade Rev.* July 25, 1924; *Paper* 34, 757-758 (Aug. 14, 1924); *Paper Mill* 48, No. 33, 40, 42 (Aug. 16, 1924). A reply to various criticisms, based essentially on the fact that the process is giving good results in practice, irrespective of what critics are saying.—A. P.—C.

Commercial Production of Chemical Pulp by Means of Chlorine Gas. Umberto Pomilio. *Papier* 27, 195-210 (Feb. 1924); 677-688 (June 1924.) An address reviewing early attempts at the commercial production of chlorine pulp and the more recent work of Cataldi, describing the Naples plant where the Cataldi-Pomilio process has been used on a commercial scale for the last two years, and discussing the quality of the pulp produced and the value of the process from an economic standpoint.—A. P.-C.

Continuous Chlorination Process for Production of Grass Pulps. A. R. de Vains. U. S. pat. 1,500,060, July 1, 1924. Chlorination is effected by mixing a small quantity of hydrochloric acid with the material and then mixing with a solution of a hypochlorite, the reaction taking place according to the equation: $CaOCl_2 + 2\,HCl = CaCl_2 + 2Cl + H_2 = O$. The chlorine acts in the nascent state and combines with the ketones or other organic radicals so as to chlorinate them, thereby forming hydrochloric acid which re-enters the cycle of the reactions.—A. P.-C.

Chlorination of Ligno- and Pecto-Celluloses in the Manufacture of Pure Pulp. Antoine Regnouf de Vains. Ger. pat. 397,-360. *Papierfabr.* 22, 322,323 (July 13, 1924). Nascent chlorine is produced by treating alkali or alkaline-earth hypochlorites with mineral or organic acids which free chlorine from its compounds. The chlorine, so produced, is employed for chlorinating ligno- or pecto-celluloses in the manufacture of pulps.—J. L. P.

Process and Apparatus for Continous Chlorination of Cellulosic Materials. A. R. de Vains. Fr. pat. 571,716. Material is delignified by continuous treatment with chlorine gas, either under pressure or at atmospheric pressure. When using chlorine under pressure, chlorine is introduced continuously into an enamelled autoclave filled with the material to be chlorinated, the rates of feed of chlorine and of cellulosic material and the rate of discharge of the latter being adjusted so as to keep the level constant in the chlorinator. When the gas is used at atmospheric pressure, the material is fed to the top of the chlorination tower through a suitable pulp

distributor, and falls on ring shaped packing. Chlorine is fed into the bottom of the tower at such a rate as to keep the pressure in the tower constant, as shown by a water gage. Any chlorine which is not immediately absorbed by the non-cellulosic constituents of the pulp is dissolved in the water which carries the pulp, and the reaction proceeds completion in one or more other towers to which the material is fed. The towers should be so proportioned that the material takes at least ten minutes to pass through them. An alkaline solution (preferably lime water) is then injected into the pulp to neutralize the hydrochloric acid formed during chlorination. The neutralized pulp is given a thorough washing, after which it can be bleached with about one or two per cent of bleaching powder.—A. P.-C.

Mechanical Processes

Pulp Grinder. Geo. Jas. Manson. U. S. pat. 1,486,352, Mar. 11, 1924. A conical grinding element, the outer surface of which is at an angle of 30° to the axis, rotates within a fixed casing. Material is fed between the grinding surfaces from a feed chamber at the small end of the cone. The surface of the rotary element is provided with a series of feeding grooves, which extend in a spiral around the periphery and gradually decrease in depth from the small end to the large end of the cone. Each groove at its commencement is formed substantially rectangular with the side walls opening downwards slightly; the angle of the side walls gradually increased and they are converged at the bottom until the grooves run out. Subsidiary grooves are provided from each of the main grooves and extend parallel to each and have a gradually decreasing section from the point at which they meet the main grooves to their extremities. The grinding elements may be manufactured from stone or from metal, but preferably from a mixture of equal parts of cement and sharp sand, to which is added about 10% sawdust to form voids. In operating, raw material such as saw mill waste is first chipped and then mixed with water until the mixture contains 10% chips and 90% water. It is fed by gravity between the grinding surfaces, the space between them being set so that there will be room for several thicknesses of fibers. In this way relatively long fibers are produced as the comminuting is produced rather by the fibers rubbing against one another than by being rubbed directly between the grinding surfaces.—A. P.-C.

Pulp Stone Dressing Burr. C. B. Aiken and F. W. Aiken. U. S. Pat. 1,476,571, Dec. 4, 1923. The teeth of the burr are relatively thin and sharp, and the bottoms of the grooves are practically flat or correspond to the circumference of the stone. The corners where the teeth meet the grooves are rounded. This construction avoids the usual chipping or breaking off of the edges of the grooves made by the burr teeth in the stone, as the teeth emerge from these grooves during the dressing of the stone.—A. P.-C.

Recent Developments in the Mechanical Wood Pulp Industry. Stoewer. *Wochbl. Papierfabr.* 55, 1532-1535 (June 21, 1924). An address in which recent developments in wood grinder construction are outlined.—J. L. P.

Continuous Grinder. Anon. *Wochbl. Papierfabr.* 55, 2268-2270 (Sept. 6, 1924). The advantages claimed for the newly developed Voith continuous grinder system are summarized as follows: uniform power consumption, uniformly disintergrated stock, better utilization of wood, minimum power consumption per 100 kg. wood pulp, simple control and low upkeep, easy rotating stone, and the elimination of pressure cylinders, etc.—J. L. P.

Controlling the Pressure Exerted by Paper Machine Presses. E. J. Wilson assignor to F. C. Huyck & Sons. U. S. pat. 1,489,622, Apr. 8, 1924. Each end of the upper press roll of each press is connected to a suitable spring link, through which pressure is applied to the roll, e.g., by connecting the link to an adjustably weighted compound lever. Application of pressure deflects or distorts the link to an extent corresponding to the pressure and means are provided for suitably indicating and recording the deflection or distortion, preferably in terms of the applied pressure. The optimum pressure can thus be readily ascertained and maintained, and the pressure can be regulated so as to be equal at both ends of the roll, thereby ensuring uniform pressure across the whole width of the sheet.—A. P.-C.

Watermarking Process. Papeteries Vincent Montgolfier. Eng. pat. 215,302, July 24, 1924. The moist paper is watermarked by means of a roller having the desired design engraved thereon in intaglio by rotogravure process. Starting with a negative of the design which it is desired to produce, a reversed positive is worked off on to glass, and the latter is exposed in contact with a sheet of carbon printing paper, which is preferably stippled or reticulated by exposure with a negative consisting of a reticulation of very fine crossed lines, prior to exposure with the reversed positive. The carbon paper is applied with cold water to a perfectly clean and polished cylinder and developed in warm water in such a manner that the paper backing of the proof comes off leaving the layer of pigmented gelatine. The latter is dried and the copper cylinder is subjected in the usual manner to the action of nitric acid, which penetrates more or less according to the thickness of the gelatine, thereby reproducing the design in intaglio. The roll is mounted on a mandrel and pressed in contact with the moist sheet before it reaches the driers.—A. P.-C.

Method of Watermarking Paper. Paul Erkens. Fr. pat. 571,460. The essential characteristics of the invention consist in an endless wire screen (or a wire cylinder) above the usual wire. The upper wire carries the watermarking designs, and the stock is fed on to it and is couched on the lower wire near the breast roll. The upper wire is mounted so that the shake of the two wires will be the same at their point of contact. The process is claimed to give very sharp and well-defined water marks, and at the same time to give a paper having practically the same strength in the machine and cross directions, so that it is particularly suitable for the manufacture of bond and banknote papers.—A. P.-C.

Paper Slitter and Winder. S. M. Langston and K. Sieg assignors to Samuel M. Langston Co. U. S. pat. 1,488,126, Mar. 25, 1924. The invention relates to the means for controlling and affecting movement of the winding shaft and pressure roller in surface winders. The winding shaft which is not positively driven, is mounted in bearings carried by bearing blocks slidable vertically on the front vertical edges of the frame. The two bearing blocks, bearings and shaft are counterbalanced so as to be free to "float" without any material tendency toward upward or downward movement, and to "float" independently of each other so that if the paper roll should develop to a larger diameter at one end than at the other the roll may be kept in proper engagement with the winding drums by a difference in the movement of the two bearing blocks. Means are provided for positively lifting the winding shaft bearings when the wound roll is completed, and for lowering the shaft when it is desired to bring it close to the winding drums to start a new roll. The riding roller is carried by a shaft mounted in bearings on a pair of bearing blocks which are vertically movable on the front edges of the frame, and above the winding shaft bearing blocks. It is positively driven by miter gears, one of which is on one of the bearing blocks of the roller shaft and the other on the shaft of the riding roller, the gear on the bearing block being splined to a vertical shaft at the side of the frame. To keep the riding roller parallel with the winding drums the two bearing blocks carry a cross shaft having pinions meshing with rack bars rigidly secured to the frame of the machine.—A. P.-C.

Favorable Power Conditions

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., May 3, 1925.—The Holyoke Water Power Company was able to manufacture electricity for power purposes during the month of April wholly from its hydro-electric units not being obliged to operate its steam plants during that period. The outlook is for a similar condition in May.

Section of the

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Conducted by THOS. J. BURKE, C.A., Sec-Treas

Industrial Psychology: Its Scope and Effect on Efficiency*

By Charles S. Myers, C.B.E., M.D., Sc.D., F.R.S., Director of the National Institute of Industrial Psychology.

It may be convenient if my lecture is divided into the following five heads:—

(1) Vocational Study.
(2) Movement Study.
(3) Spell Study.
(4) Environment Study.
(5) Study of Incentives.

(1) Vocational Study—and here, of course, should come in the choice (to the need for which the Chairman has referred) of those who are to be at the heads of business; but I am afriad that for a long time that will be an ideal far from being reached.

(2) Movement Study, including the arrangement of materials and the improvement of materials. By materials is meant both implements and the stuff which is handled. A great deal of work has been done in regard to this in the routing and supply of material. We have found that irritation is apt to be set up in factories where, because routing is defective, there is sometimes waiting, and sometimes a rush.

With regard to the improvement of mechanical design, there is a very great deal to be done. Engineers seem often to disregard the human factor in designing their machines. I am glad to say that the Industrial Fatigue Research Board with which I am connected, has decided to appoint a joint committee to look into this matter of machine design in connection with human efficiency. We have had several instances where treadles and levers are put in most uncomfortabe positions. We have also had instances where the introduction of implements, better designed for the work, have created an enormous increase of output. In some work that was done by the National Institute of Industrial Psychology in a Lancashire Colliery, the increased output was so great that I think the employers themselves would prefer, that I should not discuss the details.

Making a Study of Motion

There are various principles to which I shall allude in connection with the closer study of the actual movements of the worker; one is called Motion Study. The very first piece of work that we did at the Institute was in reference to the packing of Lyons' chocolates, where an increase of 35 per cent in output was obtained by studying the movements of the workers, and by improving the design of the bench at which they worked. And an interesting fact is that the girls quite spontaneously thanked the investigator because they felt much less tired at the end of the day.

Not only has one to deal with motion study itself, but also with the training of apprentices in motion study. It is of course much easier to inculcate right methods with beginners than it is to wipe out bad habits. Except in certain industries very little provision is made for the training of apprentices. A worker may be able to do good work, but yet be a poor teacher. Some experiments were tried in a factory where one group of workers were left to acquire their training in the usual manner; another group were trained systematically by the Institute, and it was found that the output of those who were trained systematically was 21 per cent greater than those who had not been so trained.

Now I come to (3) Spell Study—hours of work and rest; how long a spell should be, how long a shift should be, and also whether it is better to put in rest pauses and whether those rest pauses should be occupied with complete rest—a good deal of work has been done by the National Institute in those directions.

(4) This branch I have called Environment Study, and in environment should be included such factors as lighting, temperature, humidity, ventilation. It may be said that these are physiological and have nothing to do with the mind. But in point of fact they do act on the mind. I am using the term psychology widely. Psychology and physiology are inseparable. No psychologist is properly trained unless he also is trained in physiology, the science of the human body.

(5) Another branch is the Study of Incentives, such as modes of payment, *esprit de corps*, and the worker's interest in what he is doing.

Increasing Worker's Knowledge

One of the factors to study among incentives is the increase of the worker's knowledge so that he comes to realize the importance of his work in the whole social fabric; then he feels he is doing something besides earning his own bread and butter—doing something for the world at large. One knows what an important part that played in the war; and it is certainly of as much importance in peace-time as in war-time. Other incentives are those factors which tend to lessen monotony.

These are the five heads which are the main branches of industrial psychology so far as they have an effect on human efficiency. There are others, of course, but they do not come under the title of my lecture.

The successful application of industrial psychology depends a great deal on perfect co-operation with the management on the one hand and the workers on the other. My experience is that

*From "The Cost Accountant."

it is more difficult to get sympathy on the part of the management than on the part of the workers. The workers do realize that we are an impartial body. It might be thought that as we are paid to go into the works by the employers, the workers would take the view that we are not impartial. The management, of course, think that we are out to criticize their work, but I am glad to say that difficulties have been few and far between. One reason why we get the sympathy of the worker is owing to the attitude of our staff. Take the work we did in a coal-mine. Our investigators left their homes at 5 o'clock in the morning, went down the pit with the men, and put in 16 and 17 months with them, all the time being on very friendly terms with the workmen. They had absolutely to soak in the work before they could attempt to make any improvement. An investigation generally takes place some two or three months before any satisfactory results are obtained. A large number of things are done in works because they have always been done, but it does not follow in the least that they are the best. For instance, in the movement of the miner's pick, some experiments, previously carried out elsewhere by the Industrial Fatigue Research Board, showed that a circular movement, something after the style of swinging a golf club, was much more effective than an angular movement, changing the direction time after time. We employed that principle with regard to the swing of the pick where circumstances allowed. There were other changes in regard to the rhythm and the swing, and output was increased by about 16 per cent in the several groups of workers trained.

Removing Working Obstacles

The principle on which we work is not to push from behind, but to make things easier from in front, and to remove difficulties and obstacles which prevent the worker from doing his best. The two things are very different. You may go pushing him from behind—forcing him to work harder, leaving the conditions just as they are, or you may alter your conditions and remove what you might call friction and thus the human "machine" so to speak travels more easily along its path.

Now anyone conversant with psychology and physiology realizes that there is no one best way in which everybody can be made to do his work. The best for me is not necessarily the best for you. It certainly would not hold good for golf, swimming, or any amusement that can be thought of. Take violin playing, the best style for one man is not necessarily the best style for another. There are undoubtedly certain bad styles, but there is more than one best way, and the workers naturally object to be forced into one common mode. These are the broad general principles on which we work.

Now to deal with certain minor principles. Take the principles of vocational psychology. There are two main branches. I have already mentioned vocational guidance on the one hand, where advice is given to a person as to the best job for which he is fitted; there is also vocational selection, where endeavors are made to find the best worker for a particular job. Vocational guidance mostly goes on outside the factory. But we have been recently testing the apprentices in one of the big engineering firms in this city determining that branch of the engineering trade for which they are each most likely to be fitted and so avoiding waste of time.

Selection of Best Applicant

Vocational selection occurs wholly within the factory. A certain job is vacant; there are a number of applicants and it is desired to select the best candidate; that is what is meant by vocational selection. We have now two important classes of tests available. One class tests what is commonly known as general ability. A good deal of valuable work was done in America in showing the importance of the tests of general ability, or as it is called "general intelligence," during the war. They had men who had the intelligence to be trained as non-commissioned officers, and on the other hand those who were quite unsuited to be trained as ordinary soldiers. Different occupations require different levels of general ability, and it is as absurd to put a man to a certain kind of work if he be too intelligent as it is to put him into the same job if he be too stupid for it. As bad results will be obtained by putting a man in a job which is not good enough for him, so to speak, as by putting a man in a job which is too good for him. If a man has a job that is not likely to occupy the whole of his mind, he worries or finds the job boring, and so it is not good for him. But a person of less general ability and intelligence will settle down to it and be perfectly happy.

I now give you examples of the Institute's work. The first one comes under the head of spoilt work, and I am going to take one which may appear at first sight quite foreign to anything you have to deal with but which, I think, is germane to the subject. It is "spoilt work" or breakages—in tea-shops. The way we went about the investigation was to find out what articles were broken, why were they broken, and when were they broken. Now in order to do that we put baskets about the tea-shops and examined them after various intervals—10 to 12 o'clock, 2 to 4, 4 to 6. It was not difficult to ascertain how many cups, saucers and plates were broken. How were they broken? Were they broken by the waitresses, at the counter, the elevator, or in washing up? Then the actual question was as to why they were broken. There were two kinds of conditions to deal with—the material condition of breakage and the psychological.

Psychological Causes

Dealing with the psychological cause, it was found that excitement and irritation were the most important factors. Fatigue, no doubt, was also a factor. There is, of course, a tremendous rush in these tea-shops during the luncheon and tea hours, and the trouble is increased by the multiplicity of calls down the speaking tube. By introducing an electrical indicator in place of the voice a great deal of irritation is removed. What we did was to try and find the causes of this excitement and irritation.

As a result, there was an all round reduction of over 53 per cent, and for one particular article there was a reduction of over 70 per cent in breakages, and taking the results by hours and data, between 10 and 12 o'clock there was a reduction of 20 per cent, between 12 and 2 a reduction of 44 per cent, between 2 and 4 a reduction of 34 per cent, and between 4 and 6 a reduction of 72 per cent. From these figures, it will be seen that the greatest reduction in breakages occurred towards the end of the day—after the changes had been carried out—showing conclusively that the fatigue had been enormously reduced towards the latter end of the day. These percentages refer to breakages in proportion to 1,000 articles handled.

"Spoilt work" curves then are obtainable for different hours of the day, but a good deal of work has yet to be done in obtaining data in regard to this. Similar work has been carried out in regard to accident causation, and here apparently fatigue is by no means the only cause. There is a good deal of evidence now that accidents—like a good deal of spoilt work—may also occur at the start of a spell. There is one thing that comes in there—the person has not settled down absolutely to the work. Another factor closely allied to that is, of course, inexperience. Accidents happen far less frequently where there are experienced workers, and particularly where the worker is pushed to increase the output there is an increase in the number of accidents.

The Labor Turnover

Now I want to turn from spoilt work and accidents to labor turnover. I do not know how exact are the records of it in the firms with which those present have to deal, but I am quite certain that, whatever the manufacturer may know about the cost of his articles, he knows less about the amount of his labor turnover and of its cost to him. It varies enormously in different works in the country. It can be measured by the percentage ratio of the number of those who leave to the number of those employed in a given period; and that varies from less than 5 to certainly a good deal

more than 100 per cent in this country. The cost is very great. There is not only the cost of training, but also the cost of reduced output—the new hand being inefficient. Not only is he inefficient in the amount of his output, he is also inefficient because he spoils so much of his work and has a large amount of scrap. Being inefficient he also probably causes a greater amount of wear and tear on his machine, and is more liable to accidents. In America it is calculated that this loss may mean anything from £7 to £17 per worker. That is difficult to translate into figures in this country. Various causes of labor turnover can be analyzed, such as reduction of staff, unsuitability or dissatisfaction of the worker, ill-health, and domestic affairs, such as marriage. Many of these are remediable. Take, for example, workers leaving through dissatisfaction. I know of one firm where this particular cause was reduced by 83 per cent— by paying special attention to its causes. Unsuitability of the worker can be remedied to a large extent by careful selection. Reduction of staff can also be largely remedied by making arrangements to spread the work over a wide period instead of having rush periods and slack ones. Ill-health may, in some cases, be the result of unsatisfactory conditions of the factory, e.g., due to bad ventilation and lighting.

I am very glad to be able to give this very brief sketch of the scope of industrial psychology and its effects on efficiency, because I feel that month by month and year by year we are coming into closer contact with the Cost and Works Accountant. I feel that your work is of very great value to industrial psychology. I don't know how far data have been obtained by you, but I am sure in the course of time the management will insist upon data with regard to labor turnover and lost time, to output of machines, to output of manual labor, and to spoilt work. They are all going to be necessary for our own research, and they are going to be necessary for the employer if he is going to call in the assistance of the psychologist.

Curves of Output

I have not referred to curves of output very much this evening, but they are matters of extreme necessity to psychologists. The output of the worker day by day, the amount of his spoilt work and curves of that kind are going to be of great interest to the psychologist. If the worker's curves of work throughout the day are taken, it is beginning to be recognized that they will show how much he produces hour by hour, and that the form of the curves will differ according to the kind of work the worker is doing, whether it be muscular work, whether it be dextrous, or whether it be rhythmical work. One may find out if what is called "ca'canny" is going on by investigating the work curves.

I feel that you are the first people to put your finger on something which is wrong in the works where some data have gone up or down. You are the family doctors while we are the specialists called in to discover the causes and the remedies which ought to be applied; and just as the divisions between the general practitioner and the specialist are extremely vague, and each must know the work of the other, so it seems to me that accountants must have a certain amount of knowledge of psychology, while if the psychologists, on the other hand, recognize the value of data and statistics, then I think in the future we shall be mutually helpful and closely dependent on one another.

Pricing the Inventory*

It is not the purpose of this paper to deal with the mechanical process of assigning prices to individual items, but rather with the principles according to which prices should be determined, and the method of handling, for book and statement purposes, the "write downs" which may be made necessary by anticipated declines in deplacement or production costs. We shall not concern ourselves with principles of cost-finding, but we shall look into the question of whether a manufactured inventory should necessarily be priced at cost, at the close of an accounting period, or whether there may be some sounder basis.

There is perhaps no more important item in a balance sheet, than the inventory. It receives paramount consideration from the banker, from the credit man, from the alert executive, and even, although perhaps too infrquently, from the investor. It is also one of the most important elements in the computation of profits or losses.

Price Problems Numerous

As to the quantities contained in inventories, there are not many problems. Except in cases of fraud, quantities are usually faithfully and accurately reported, although there are occasional serious omissions or duplications. But as to prices, the problems are numerous. The effect of a large inventory valuation, as compared with a smaller valuation, upon the profits, is generally well understood in business circles; and it is to the adjustment of values that recourse is usually had when it seems necessary or advisable to alter somewhat the profits or losses from a period's operations. To say that it was a common practice to deliberately value inventories to suit the circumstances would be to grossly misstate the fact, but the attitude of the merchant or manufacturer toward his inventory naturally depends upon whether he feels prosperous enough after the year's operations to slash off a bit of the profits for the sake of conservatism, or whether on the other hand, the pinch of depression has made him eager for an extra dollar of profit.

Realizing the importance of correctly stating the profits for each year, and understanding the role played by the inventory in a computation of profits, we must choose a safe middle course between a too liberal valuation, and one that it too conservative. The too liberal valuation results in window dressing, which may be entirely unintentional, while the too conservative one puts the business so far on the safe side as to distort the picture.

What, then, is the safe middle course? Generally, it is cost or market value, whichever is lower, although there are some important exceptions to which we shall allude later. Criticism of this principle has frequently been made on the ground that it is one-sided, that is, the result is to take into account unrealized losses, but to deny unrealized profits. Such is the case, but it is generally conceded to be poor accounting and financial practice to anticipate profits, while, on the other hand, conservative management demands provision against imminent but unrealized losses.

Determining Market Price

Determining the market price is not so simple as it may seem. Quotations may be had at practically any time, to be sure, but they may prove to be only a starting point in the bargaining process between buyer and seller. In a badly demoralized market like that of 1921, the buyer with ready cash can frequently purchase at less than the cost of manufacture; yet no sane seller would quote prices below his cost, unless he was forced to liquidate all or part of his inventory. The Treasury Department of the United States has given us an almost ideal definition of market value, which reads as follows: "Under ordinary circumstances market means the current bid price prevailing at the date of the inventory for the particular merchandise in the volume in which ordinarily purchased by the taxpayer."

Some enlargement might, perhaps, be made upon the definition, to suggest that, for inventory valuation purposes, the trend of the market should also be recognized, as well as the market price prevailing on a specific date. But more important is it to have regard for that part of the definition which says that the price shall be that

*From N. A. C. A. Bulletin.

which applies to the volume in which purchases are ordinarily made. This is probably the most difficult, and yet the most essential factor in the determination of the market price, and it is very frequently overlooked altogether. A good many of the market values used in pricing inventories are taken from trade papers, and do not always represent quotation which could be procured for quantity purchases.

What has been said thus far, chiefly concerns purchased inventories, such as those of trading companies, or the raw material inventories of manufacturing companies. The same principle applies, however, to manufactured inventory, though the approach to the problem is from a somewhat different angle. In periods of depression, or in slow markets, it is not uncommon to find manufacturers selling at an unusually small margin over cost, or perhaps at even less than cost. An inventory valuation which failed to take such circumstances into account would neither constitute a proper basis for calculating profits, nor could it be included in the balance sheet without, to some extent, destroying that statement's value as a picture of the financial standing of the business.

The market price of a manufactured inventory, if the market is competitive, should be based upon average quotations, or less, minus a percentage which will cover selling and administrative expenses, and allow a fair margin of profit. If the market is non-competitive, or a monopoly, the inventory, valuation should be the price which will move the product in quantities sufficient to render operations profitable, minus an allowance for expenses and profit. In each instance, the basic prices used should be those which would enable sales to be made in quantities necessary for successful operations.

Always a Market

It may be contended, that there are times when such quantities cannot be moved at any price. Such a situation may prevail in isolated cases but a survey of national production during the years 1909 to 1919 inclusive, the results of which were published by the National Bureau of Economic Research, led to the conclusion "that the worst years fell 15 to 20 per cent below the best, and something like 8 to 12 per cent below the moderately good years." Assuming that these percentages are reliable, and it is doubtful whether the report would have been sponsored by the agency mentioned unless they were, it would seem that, generally speaking, there is always a market, provided goods are priced right.

The principle of pricing just enunciated is not new, nor is it impractical. It has been adopted quite extensively, during recent years. Department stores, whose business is, of course, vastly different from that of manufacturing, but whose inventories must nevertheless be valued according to the same general rules, have adopted the principle in increasing numbers. There, inventories, are taken at retail prices, to be later reduced by the percentage of mark-up which represents the difference between cost and the first-marked selling price, or the margin required to cover expenses and profit. When merchandise proves unsalable as first marked, it is reduced as far as necessary to move it. At inventory time, it is listed at the reduced prices, but no adjustment is made in the mark-up percentage, because of the price revision. The application of the mark-up percentage in reduction of all retail prices, then, has the effect of automatically reducing the inventory to cost or market, whichever is lower. The practice has received wide-spread recognition in department stores, and has even been recognized in the United States Treasury Department as a proper method of accounting, for income and profits tax purposes.

A note of warning must again be sounded in connection with the use of cost or market price, whichever is lower. If inventories are reduced to market at the close of one year, and the market rises in the succeeding year, the latter year may be given credit for profits to which it is not entitled. To avoid this possibility, we must have our eyes to the trend of the market, as well as to the price prevailing at inventory date.

Valuation Rules Theoretical

It will be seen that our theoretically perfect rules of valuation cannot be applied, without modification, in all cases. Judgment and discretion must supplement the rules, in order that a valuation may be placed upon the inventory which not only will fairly represent its worth for balance sheet purposes, but which also can be used as a fair basis for the assignment of profits to two successive years.

There are some special considerations in connection with inventory valuations to which brief attention might well be given.

In the simplest kind of manufacturing, where the process is continuous, and the product uniform, it is usually the practice to determine costs by dividing the total manufacturing cost by the number of units produced. At inventory time, in such cases, it is necessary to review the year's costs, to ascertain whether any changes during the year in the scale of wages or in the prices of materials, have caused average costs for the year to differ from current costs. Where such differences are found, and current costs do not seem abnormal, it would be better to price the inventory at the average costs developed in the period required to produce the inventory, rather than at average costs for the year.

Related to this question is that of attempting to absorb all overhead in the cost of manufacture for a given period. During depressions, when the volume of production falls off, the amount of overhead per unit of manufacture naturally rises. At the same time, the market value, as indicated by the selling price, declines. An attempt to absorb all the overhead, in these circumstances, leads to an overvaluation of inventory. It is one thing to know, for statistical purposes, what the product has cost, including all the overhead, but it is another thing to know the value which can safely be placed upon the product.

In large scale manufacturing operations, it is frequently found that important units of the enterprise are expected to show profits on the work they perform. Thus we find one subsidiary company selling to another, at a price which yields the first company a profit on its manufacture. The second company considers this price to be the cost of its raw material, and perhaps, in turn, fixes its selling price to still another subsidiary so as to show a profit. For the purpose of consolidated financial statements, all such intercompany profits, must be eliminated both from the inventories and from consolidated profits. It is usually most convenient to accomplish this result by means of reserves.

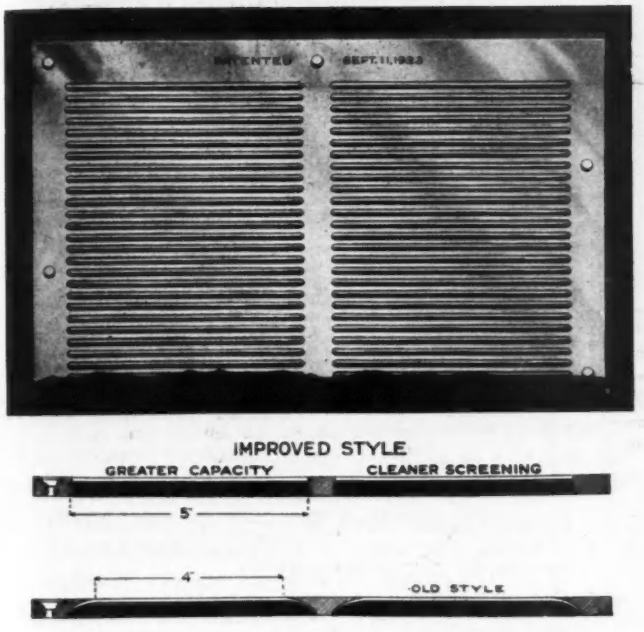
Striking a True Value

Valuation of damaged materials, unseasonable or obsolete stocks, or shop-worn or deteriorated stocks merit careful consideration. Depending upon the nature of these stocks, they may sometimes be fairly valued at job-lots, in which case the valuation will be more or less arbitrary, while in other instances they may be valued at the cost of first class materials or product, minus the cost of reconditioning. In the case of obsolete manufactured products, the question is whether or not they can be reprocessed, and thus like current products. If so, their inventory value may be the current cost of production, minus the cost of reprocess. If not, their value must not exceed what they would bring as junk or scrap.

In valuing raw materials, or merchandise, where cost is applicable, it is customary to add freight and duty to the invoice cost, and sometimes to add handling charges. Freight and duty can usually be assigned to specific shipments, and they are usually of some consequence, for which reasons, they are frequently added to invoice cost. Handling charges, ordinarily are not of such consequence, and, if distributed at all, must nearly always be assigned in some arbitrary proportion, wherefore they are usually not added to invoice cost.

The mention of duty brings us to the question of how to value foreign purchases, when rates of exchange are subject to fluctuation. It might be said that there is no unanimity of practice in this respect. There seems to be fairly general agreement upon the practice of converting the invoice cost at a rate of exchange which prevails on a certain date, and following any difference between that

(*Continued on page 70*)



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E. J. Keller Co., Inc., Veendam, Rotterdam, 198 bls. rags.
P. Berlowitz, Veendam, Rotterdam, 206 bls. rags.
The Stone Bros. Co., Inc., Veendam, Rotterdam, 87 bls. rags.
Equitable Trust Co., Cabo Torres, Leghorn, 10 bls. rags.
Salomon Bros. & Co., Cabo Torres, Leghorn, 20 bls. rags.
E. J. Keller Co., Inc., Cabo Torres, Leghorn, 161 bls. rags.
New York Trust Co., Cabo Torres, Barcelona, 82 bls. rags.
Bankers' Trust Co., Carlier, Antwerp, 95 bls. rags.
National City Bank, Deutschland, Hamburg, 135 bls. rags.
Equitable Trust Co., Deutschland, Hamburg, 69 bls. bagging.

OLD ROPE

Brown Bros. & Co., Galileo, Hull, 216 coils.
Brown Bros. & Co., Galileo, Newcastle, 116 coils.
New York Trust Co., Galileo, Newcastle, 268 coils.
Guaranty Trust Co., Galileo, Newcastle, 197 coils.
E. J. Keller Co., Inc., Kendal Castle, Alger, 86 coils.
Brown Bros. & Co., Boston City, Bristol, 181 coils.
W. H. Cummings & Son, Waukegan, Havre, 37 coils.
Brown Bros. & Co., Deutschland, Hamburg, 66 coils.

MANILA ROPE

Ellerman's Wilson Line, Minnetonka, London, 40 coils.
New York Cordage Co., Zeeland, Antwerp, 9 rolls.

SUNN ROPE

New York Cordage Co., Zeeland, Antwerp, 15 rolls.

GLUESTOCK

Connecticut Glue Co., Carlier, Antwerp, 152 bls.

WOODPULP

Ira L. Beebe & Co., Inc., Arabic, Hamburg, 410 bls. woodpulp, 82 tons.
Castle & Overton, Inc., Arabic, Hamburg, 280 bls. woodpulp.
Castle & Overton, Inc., Thuringia, Hamburg, 685 bls. woodpulp.
Castle & Overton, Inc., Deutschland, Hamburg, 135 bls. woodpulp, 27 tons.
Johanson, Wales & Sparre, Inc., Drottningholm, Gothenburg, 250 bls. sulphate pulp.
E. M. Sergeant & Co., Drottningholm, Gothenburg, 178 bls. dry soda pulp.
E. M. Sergeant & Co., Drottningholm, Gothenburg, 300 bls. sulphite pulp.
Price & Pierce, Ltd., Drottningholm, Gothenburg, 3,600 rolls wet pulp.
Tidewater Papermills Co., Bornholm, Liverpool, N. S., 12,547 bls. woodpulp.

WOODPULP BOARDS

Fibre Case & Novelty Co., Drottningholm, Gothenburg, 59 bls.
Lowy & Lowy, Inc., Drottningholm, Gothenburg, 9 bls.

WOODFLOUR

B. L. Soberski, Stavangerfjord, Fredrikstad, 2,776 bags, 148,768 kilos.
Innes Speiden & Co., Veendam, Rotterdam, 925 bags.
A. Kramer & Co., Inc., Veendam, Rotterdam, 500 bags.

CASEIN

Kalbfleisch Corp., Amer. Legion, Buenos Aires, 1,334 bags.
Atterbury Bros., Inc., Steel Seafarer, Buenos Aires, 1,085 bags.
Equitable Trust Co., Steel Seafarer, Bueos Aires, 250 bags.
T. M. Duche & Sons, T. Fagelund, Buenos Aires, 1,668 bags, 100,080 kilos.
M. E. Clarendon, T. Fagelund, Buenos Aires, 834 bags, 50,040 kilos.
Atterbury Bros., Inc., T. Fagelund, Buenos Aires, 417 bags, 25,020 kilos.

CHINA CLAY

C. T. Wilson & Co., Inc., Boston City, Bristol, 25 casks.
C. B. Richard & Co., Boston City, Bristol, 228 bags.

PHILADELPHIA IMPORTS

Week ending May 2, 1925.

Wilkinson Bros. & Co., Inc., Kohnan Maru, Hamburg, 12 bls. wrapping paper.
B. Kessler, Eastern Dawn, Antwerp, 53 rolls wrapping paper.
B. Kessler, Eastern Dawn, Antwerp, 32 bls. wrapping paper.
Philadelphia National Bank, Topeka, Fredrikshald, 963 rolls paper.
Considine Co., Topeka, Fredrikshald, 9 bls. paper.
Perkins, Goodwin & Co., Beemsterdyk, Rotterdam, 55 cs. printing paper.
Philadelphia National Bank, Beemsterdyk, Rotterdam, 66 cs. printing paper.
C. W. Williams, Davisian, Antwerp, 12 cs. colored paper.
Brown Bros. & Co., Seattle Spirit, Hamburg, 19 cs. paper.
Castle & Overton, Inc., Anaconda, Rotterdam, 268 bls. rags.
Specter & Co., Anaconda, Rotterdam, 24 bls. rags.
New York Trust Co., City of St. Joseph, Marseilles, 174 bls. rags.
Philadelphia National Bank, Eastern Dawn, Antwerp, 56 bls. rags.
Franklin Paper Co., Eastern Dawn, Antwerp, 57 bls. wastepaper.
E. J. Keller Co., Inc., Beemsterdyk, Rotterdam, 55 bls. rags.
Philadelphia National Bank, Beemsterdyk, Rotterdam, 55 bls. dark cottons.
Brown Bros. & Co., Beemsterdyk, Rotterdam, 78 bls. cottonwaste.
E. J. Keller Co., Inc., Hellen, Barcelona, 29 bls. rags.
E. J. Keller Co., Inc., Hellen, Marseilles, 217 bls. rags.
W. Steck & Co., Cabo Torres, Marseilles, 30 bls. rags.
Congoleum Nairn Co., Cabo Torres, Marseilles, 126 bls. rags.
Salomon Bros. & Co., Cabo Torres, Marseilles, 236 bls. rags.
Castle & Overton, Inc., Cabo Torres, Marseilles, 80 bls. rags.
Brown Bros. & Co., Cabo Torres, Leghorn, 112 bls. rags.
Castle & Overton, Inc., Ikala, Hamburg, 245 bls. rags.
E. J. Keller Co., Inc., Hannover, Bremen, 194 bls. rags.
E. J. Keller Co., Inc., L. Luckenbach, Kobe via Seattle, 300 bls. rags.
E. J. Keller Co., Inc., Manchester Exchange, Manchester, 117 bls. bagging.
Brown Bros. & Co., Manchester Exchange, Manchester, 17 bls. threadwaste.
New York Trust Co., Manchester Exchange, Manchester, 22 bls. cuttings.
O'Neill Bros., Inc., Manchester Exchange, Manchester, 42 bls. waste.
Brown Bros. & Co., Mississippi, London, 136 bls. rags.
J. A. Steer & Co., Eastern Dawn, Antwerp, 102 coils old rope.
Union National Bank, Beemsterdyk, Rotterdam, 80 coils old rope.
The Borregaard Co., Inc., Topeka, Tofte, 336 bls. sulphate pulp.
National City Bank, Topeka, Fredrikshald, 300 bls. sulphite pulp.
Nilsen, Lyon & Co., Inc., Topeka, Fredrikshald, 150 bls. sulphite pulp.
The Borregaard Co., Inc., Topeka, Greaker, 300 bls. sulphite pulp.
J. Anderson & Co., Topeka, Greaker, 1,050 bls. sulphite pulp.
Castle & Overton, Inc., Seattle Spirit, Hamburg, 420 bls. woodpulp.
Castle & Overton, Inc., Ikala, Hamburg, 1,375 bls. woodpulp.

BOSTON IMPORTS

Week ending May 2, 1925.

Kalbfleisch Corp., Steel Seafarer, Buenos Aires, 1,167 bags casein.
First National Bank of Boston, Steel Seafarer, Buenos Aires, 1,334 bags casein.
J. A. & W. Bird & Co., Mississippi, London, 187 bags casein.
First National Bank of Boston, T. Fagelund, Buenos Aires, 834 bags casein, 50,040 ks.
Kalbfleisch Corp., T. Fagelund, Buenos Aires, 834 bags casein, 50,040 ks.
T. M. Duche & Sons, T. Fagelund, Buenos Aires, 2,529 bags casein, 151,740 ks.
Kelley & Co., West Harcuvar, Bremen, 175 bls. rags.
W. Schall & Co., Mississippi, London, 27 bls. rags.
F. Leyland & Co., Mississippi, London, 28 bls. rags.
American Express Co., Mississippi, London, 83 bls. rags.
Merchants' National Bank, Mississippi, London, 82 bls. rags.
Furniss, Withy & Co., Mississippi, London, 72 bls. rags.
Crocker, Burbank Co., Mississippi, London, 238 bls. wastepaper.
Baring Bros. & Co., Ltd., Maine, London, 122 bls. wastepaper.
Brown Bros. & Co., Maine, London, 334 coils old rope.
Brown Bros. & Co., Maine, London, 12 bls.
Scandinavian Pulp Agency, Inc., Baltic, Gothenburg, 3,409 bls. kraft pulp.
Scandinavian Pulp Agency, Inc., Baltic, Gothenburg, 889 bls. sulphite pulp.
Johaneson, Wales & Sparre, Inc., Idefjord, Sundsvall, 500 bls. sulphite pulp.
Hartig Pulp Co., Inc., Idefjord, Sundsvall, 450 bls. sulphite pulp.
Page, Horton & Co., Inc., Idefjord, Gefle, 3,250 bls. sulphite pulp.
Bulkley, Dunton & Co., Idefjord, Gefle, 1,175 bls. sulphite pulp.

CHARLESTON IMPORTS

Week ending May 2, 1925.

E. J. Keller Co., Inc., Tulsa, Rotterdam, 357 bls. bagging.

NEW ORLEANS IMPORTS

Week ending May 2, 1925.

Castle & Overton, Inc., Coldbrook, France, 543 bls. rags.
Castle & Overton, Inc., Coldbrook, France, 13 bls. bagging.

(*Continued on page 70*)

Cleaner Paper

We know that one of the most important factors in paper making is that of cleansing. We designed and constructed our Type "B" IRON EXTRACTOR with a view toward effecting greater satisfaction in the cleansing processes and the success with which this device has met during its fifteen years on the market is sufficient proof of its efficiency.

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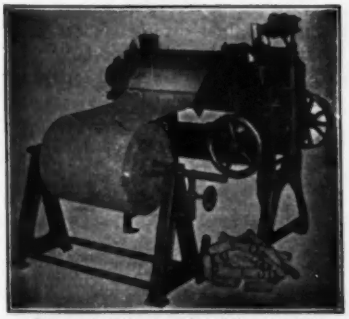
Automatic Tube Machines

For Making Tubes for Toilet Paper Rolls, Paper Towel Rolls



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Towel Tubes

are made at rate of 1,800 per hour. Substantially built and fully guaranteed.

Toilet Paper Machines for making Toilet Rolls with or without perforations and machines for making Sanitary Crêpe Paper Towels, Punch Presses for Sheet Toilet Paper, Drop Roll Slitters, Photo Mount Beveling Machines, Rotary Card Cutting and Collating Machines, Etc.

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LOFT DRIED PAPERS
LEDGERS
BONDS
WRITING PAPERS

Mill:—North Wilbraham, Mass

Main Office:

208 Race Street Holyoke, Mass.

Imports of Paper and Paper Stock

(*Continued from page 68*)

BALTIMORE IMPORTS

Week ending May 2, 1925.

Hubbs, Corning & Co., Mt. Clinton, Hamburg, 118 rolls wrapping paper.

J. H. Vandelin, Mt. Clinton, Hamburg, 1 cs. surface coated paper.

E. J. Keller Co., Inc., Waukegan, Dunkirk, 310 bls. rags.

Congoleum Nairn Co., Waukegan, Dunkirk, 224 bls. rags.

E. J. Keller Co., Inc., Mt. Clinton, Hamburg, 735 bls. rags.

E. J. Keller Co., Inc., Mt. Clinton, Hamburg, 58 bls. rag pulp.

Paper Makers' Importing Co., Soberg, Fowey, 2,848 tons clay.

Castle & Overton, Inc., Ikala, Hamburg, 1,370 bls. woodpulp.

Ira L. Beebe & Co., Inc., Hannover, Bremen, 1,000 bls. woodpulp, 200 tons.

Philadelphia National Bank, Columbia, Trieste, 167 bls. woodpulp.

Chemical National Bank, Topeka, Oslo, 1,200 bls. woodpulp.

Nilsen, Lyon & Co., Inc., Topeka, Oslo, 900 bls. woodpulp.

National City Bank, Topeka, Oslo, 300 bls. woodpulp.

PRICING THE INVENTORY

(*Continued from page 64*)

rate, and the rate at which bills are subsequently bought, to be carried to profit and loss. The lack of uniformity is in the selection of the date as of which the conversion is made. In some instances the date chosen is that of the purchase order, or commitment; in others, it is the date of the invoice; in still others, it is the date of receipt of the goods; while, in some cases, the prices are not converted until exchange is purchased, and the bills paid. I would venture the suggestion that foreign purchases be converted at the rates prevailing on the date of the purchase order, for the reason that the buyer has, at that time, a conception of the value in United States funds, at which he can dispose of the material when received, or at which he can afford to manufacture, and his conclusion to buy or not to buy abroad, probably depends entirely upon the current quotations for foreign funds. This argument may not be so sound in cases where businesses must look to foreign markets for their supplies of materials, but where the buyer has any choice in the matter of foreign purchases, it would seem to have merit.

Treatment of Cash Discounts

There is also some lack of uniformity in the matter of treating cash discounts as deductions from invoice cost for inventory purposes. Let us assume two purchasers each buy the same materials at the same prices, but that one is well enough supplied with cash to discount his bills, while the other requires the full credit period, and cannot discount. We can see that if cash discounts are to be deducted from invoice cost, to fix the inventory price, the buyer who discounts will be at a disadvantage as compared to the one who cannot: the discounted inventory will have the lower valuation in the two balance sheets. Yet, as between the two, the buyer who discounts is probably in the better position, and is entitled to the better financial statement. This would seem to make a good case for the practice of valuing inventories at invoice cost, and considering cash discounts as an earning of the financial department.

Consignments are sometimes found in inventories, at selling prices. To so price them is to take up an unrealized profit. There is some justification for adding transportation charges to a distant point, to the cost of a consignment, provided that the value of the goods has been enhanced in the location where it stands, by the shipping expenses. But there is no justification for adding anything else to the cost.

Likewise, inventories applied to specific sales orders are sometimes valued at selling prices. Ordinarily title to materials does not pass to the purchaser at least until the materials are delivered to a carrier. The sale is not consummated, therefore, until so delivered, and to take the materials into inventory at selling prices, is to anticipate profits.

Handling "Write Downs"

It remains to discuss the method of handling "write downs" for bookkeeping purposes. The end can be accomplished either by reducing prices on the face of the inventory, or by establishing reserves to cover the difference between cost and market or inventory values. The Treasury Department has held, repeatedly, that if a taxpayer wishes to adopt the basis of cost or market value, whichever is lower, he must apply the principle to each item of the inventory, individually, and not to the inventory as a whole. It is, in most instances, advisable to follow the instructions of the Treasury Department where there is no conflict with good accounting practice. In this instance there is no conflict.

Moreover, if a reserve is established, great care must be exercised in a succeeding year, to see that the reserve is applied against the cost of sales, as the items contained in the opening inventory are charged to cost of sales, at cost. It is not always easy to accomplish this application of the reserve accurately. The better procedure would seem to be to make the reductions on the face of the inventory, but to make them in such a manner that both the cost and the marked down value become a matter of record.

When we come to the preparation of the profit and loss account, it is good practice to so construct the cost of sales section that only cost of sales is there reflected. Inventory adjustments can well be stated separately to avoid confusion as to why the results from operations were as stated.

Bids for Government Paper

WASHINGTON, D. C., May 6, 1925.—The Government Printing Office has received the following bids for 19,988 pounds of 19 x 24—38 white M F lithograph printing paper: American Writing Paper Company 9.25 cents per pound; R. P. Andrews Paper Company 6.59 cents; Dobler & Mudge 6.25 cents f. o. b. Plainwell, Mich.; Lindemeyr & Harker 8.7 cents; Old Dominion Paper Company 7.29 and 7.39 cents, and Maurice O'Meara Company 8.5 cents.

The Government Printing Office will receive bids on May 13 for 36,000 pounds of various sizes best quality binders board.

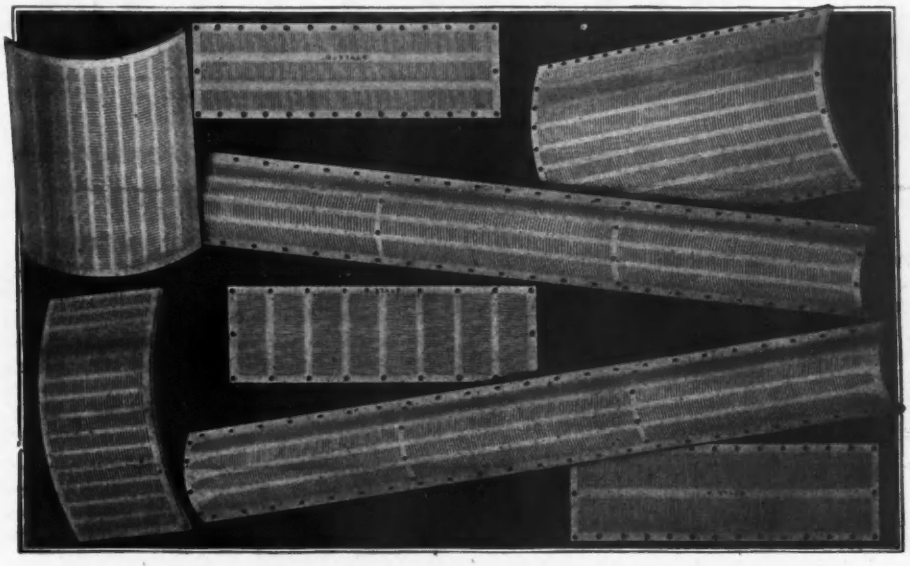
The Printing Office has received the following bids for 9,450 pounds of 24 x 38—31½, No. 13, white bond paper: American Writing Paper Company 22.5 cents per pound; Barton Duer and Koch Paper Company 18.14 cents; Dobler and Mudge 21 cents; Old Dominion Paper Company 21.39 cents, and Import Paper Company 19 cents.

The following bids have also been received by the Printing Office for 1,940 pounds of 22 x 28—194, red cardboard: Maurice O'Meara Company $40 per thousand; Old Dominion Paper Company $39.98; Barton Duer & Koch $37.47; R. P. Andrews Paper Company $37.25; Dobler and Mudge $37.97; Reese & Reese $25 and $31.98.

The Government Printing Office will receive bids on June 1 for the purchase of waste paper, paper shavings, etc., that may accumulate at the Printing Office during the fiscal year ending June 30, 1926.

Among some of the estimated quantities are the following: 2,800,000 pounds of waste paper; 50,000 pounds of shavings from blank books; 750,000 pounds of shavings from white book papers; 450,000 pounds of shavings from colored book papers, etc.; 600,000 pounds of printed waste free from groundwood; 200,000 pounds of manila clippings; 200,000 pounds of cuttings from strawboard, pulpboard, etc.; 15,000 pounds twine and rope sweepings.

WILLIAM A. HARDY & SONS CO.



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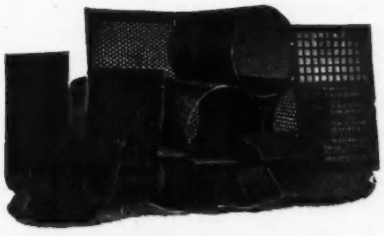

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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, May 6, 1925.

Nothing has occurred in the New York paper market during the past week to give a more healthy tone to conditions or to revive the spirit of optimism which has at last outworn its patience. Orders are being booked constantly and that is about all that there is to be said. The volume is nothing like what it should be, profits are, for the most part, down to the minimum, collections are none too good and there are plenty of other discouraging features. Paper men who all along has been talking optimistically—not of what they were doing but of what the future was to bring—have at last settled down into a mood which approaches pessimism. In place of the optimism of a few weeks ago there is now a disposition to be reconciled to anything and to be thankful for whatever the gods of business provide. It isn't because business today is so terribly bad but it is because that business is not anywhere near where it should be and the hot weather period is too near to permit any assurance of an improvement. The honest opinion of paper men today is that they will have to plod through a period of summer dullness which will be even more wearisome than that which marked the summer of 1924. Various conflicting reports of business in general are being received and the more the paper men peruse and study them the more they remain in the dark as to real business conditions. There is one thing they are agreed on, however, and that is that something ails business today but no one yet has ventured a proper or satisfactory diagnosis of just what that ailment is. Buyers by their attitude in buying show a lack of confidence for some reason or other. They have cultivated a new abhorrence regarding buying for the future and are keeping their orders cut to their immediate requirements. There is no elasticity to their buying and it will probably be a long time before they show any more liberal disposition.

News print is still steering clear of the Slough of Despond. The call from the big newspapers is as avaricious as it is constant and the big presses are devouring news print without any slackening of appetite.

Fine papers continue in a fair way but the demand is not what it was a month ago and the tendency seems to be to drop off. Coarse papers are not doing quite so well and conditions do not seem to indicate the likelihood of any immediate improvement.

The board business has slunk away slightly but is still good. The summer dullness, however, will soon set in and put a crimp in the board activity.

Mechanical Pulp

Production and consumption of ground wood are in a fairly good state. It is probable that owing to the favorable conditions some manufacturers are increasing the former and accumulating stock to be drawn on later. Demand is good and a fair amount of ground wood is constantly going to the board and news print mills. While the price tendency is downward there has been no general movement in that direction as yet.

Chemical Pulp

The chemical pulp market is laboring against slow conditions. Buyers are indifferent to buying just now and most of them seem to be in the position where they are not forced to do immediate buying. The price tone is firm.

Old Rope and Bagging

Old rope, after a few days of more active trading, slumped back again into the old rut with orders few and far between and those which come through being of small volume. The quotations of foreign manila rope have been shaded a trifle but other prices remain firm. Bagging is still experiencing quiet times but the prices for the most part are holding up well. The only change in the list this week was on foreign gunny No. 1 which went to a slightly higher level.

Rags

The rag market showed a little better feeling the past week but this has not yet materialized into actual betterment. The demand is slow and the most encouraging feature of the market is found in the numerous inquiries which indicate that there is a good amount of business almost on the point of coming across the line. There is a cautious undertone to the buying, however, and orders are not being placed until the last minute and the buyers then expect quick action. The indications seem to point to a little more activity within the next week but this may prove another poor guess as the market is in the habit lately of going against all precedents and violating all indications.

Waste Paper

The week brought no change in the waste paper market. Buyers are as indifferent as ever and are handing out their orders with an attitude suggesting that they have half a mind to pull them back. Prices are extremely advantageous just now but that seems to mean little or nothing to the buyers who are not in a buying mood. They simply cannot be lured at this stage of the game into buying anything that they do not feel compelled to buy. Prices, however, remain unchanged.

Twine

Business is as slow as ever in the twine market. There has been absolutely no change of a permanent nature for weeks and the little fluctuation which has occurred now and then has never gotten far away from the general trend.

Test Papers for Resistance to Water

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., April 29, 1925.—The Paper Section of the Bureau of Standards is continuing experimentation as regards resistance of various papers to water. The Section tested various waxed papers and showed complete penetration of moisture as indicated by the Ground Glass Method in a very short period of time. One sample of waxed paper held water indefinitely when suspended with the lower surface free, but when this surface was brought in contact with another solid surface the water ran through in a stream. Tests of Cellophane showed that this material has about as much resistance to water as ordinary well rosin-sized writing paper. Further work is being done by the Division as regards the Flotation-indicator method of determining degree of sizing of paper.

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Orr Endless Felts can now be obtained up to 86 feet in length.

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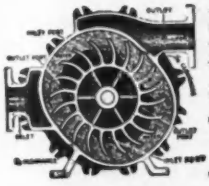

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Made from first growth Spruce and Pine, by approved processes.
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CHICAGO NEW YORK CITY BOSTON
VAPOR ABSORPTION SYSTEMS

Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, May 6, 1925.

The advent of May did not find the chemical market in any too satisfactory condition. April has been a month of fairly satisfactory business and yet a month of disappointment when the reality was compared with the hoped for. The first half of the month saw better business than the latter half and toward the end of April there was a gradual dropping off in demand for most of the commodities which did not leave the chemical men in too good spirits as May entered upon the stage. The outlook at this writing is none too good. No one looks for anything really vigorous. That excess of optimism is a thing of the past. Orders for most of the commodities which are being booked today are for immediate requirements and so literally is this true that it is at this time considered considerable of an achievement to sell a buyer for a month ahead although that buyer has been in the habit of buying for six months ahead. Hot weather is looming up close at hand and the season when the market should have been at its best is practically over. There is no chance now for the things to materialize which should have materialized during the earlier part of the year. It is evident that the summer will be very like the summer of 1924. There is nothing substantial on which to base a hope that business will be any better than it was then and there will be some relief felt if it does not prove any worse. A rather gloomy expression of conditions but one which is more truthful than some of the gilded business surveys which are apparently issued to bolster up the weak-kneed and faultering.

BLANC FIXE.—Blanc fixe which has been doing fairly well for some time is holding up exceedingly well in view of general conditions. It has showed scarcely any let-up and its condition is about as encouraging as any to be found in the market today. Nothings disturbs the prices which are holding firm, from $60 to $70 a ton being asked for the pulp while from $75 to $90 a ton is being quoted for the powder.

BLEACHING POWDER.—The encouraging thing about bleaching powder is the manner in which the price is being adhered to. There is said to be no price cutting. A big buyer made inquiries in the market during the past week and all the dealers quoted him the prevailing price of 1.90 cents a pound which illustrates how well the price is being adhered to. There is a question, however, how long this price can be sustained. It is getting where one of two things will soon be inevitable—either a cut in the price or a curtailing of production. Which course will be decided upon is a matter for speculation. Today the price still stands 1.90 cents a pound.

CAUSTIC SODA.—The demand for caustic soda remains fairly well sustained although the past week saw a very slight falling off in demand. The price keeps up and probably will continue to do so for no one has any considerable accumulation of stock and therefore has no reason to cut the price. It is still quoted at from 3.10 to 3.15 cents a pound.

CASEIN.—Casein has undergone little if any change during the past month. It can be spoken of today exactly as it was spoken of April 1. It has had a fairly satisfactory call and is still doing fairly well now when regarded from the standpoint of what is considered fairly good business in these times. It is quoted at from 12 to 13 cents a pound.

CHINA CLAY.—China clay does ont show any present disposition to return to the splendid business it was doing up to March 15 when the demand started to fall off materially. The price is holding up and will probably continue to do so with English exchange up where it is. The imported grades are quoted at from $16 to $20 a ton and the domestic grades from $12 to $15 a ton.

CHLORINE.—Chlorine has a fair demand, not quite as good as a few weeks ago but still good enough to ward off complaint. The price still remains at from $4.50 to $7.00 a pound in tanks.

ROSIN.—These are great days for rosin. The demand has been large and consistent for many weeks and apparently it is still destined to go strong for some little time to come. It is being quoted at this writing at from $6.75 to $7.00 at the naval stores centers.

SALT CAKE.—Salt cake is responding to its regular withdrawals and there is no great accumulation to be found anywhere. The contract movement of stock is satisfactory. One reason for the satisfactory condition in the salt cake market is that some of the manufacturers have already curtailed production. This, together with the fact that early in the year one big plant went out of business, has helped the situation. The present quotation is from $17 to $20 a ton.

SODA ASH.—There has been no material change in soda ash during the past week. There has been a recent falling off but little complaint is made for the soda ash men are in the enviable position of being fairly sold up for the rest of the year. The price is still 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—The demand for sulphate of alumina started to fall off a trifle a week ago and is still gliding slowly down the toboggan. Conditions, however, are not really bad for this is the time of year when such a reaction is looked for. The commercial grades are bringing from 1.40 to 1.45 cents a pound at the Eastern works and the iron free is quoted at from 2.10 to 2.25 cents a pound.

SULPHUR.—Sulphur is the safely anchored commodity of them all. It continues to enjoy its regular withdrawals without change of price or any other change. It is quoted at from $18 to $19 a ton.

TALC.—Talc, which has been showing steady improvement, has reached a temporary halt in its betterment. While it did not forge ahead during the past week, however, it did not lose any ground and is still in very satisfactory shape. The price is from $17 to $18 a ton.

Copper in the Paper and Pulp Industry

More than 8,000,000 pounds of copper are consumed yearly by the pulp and paper industries, according to the *Copper and Brass News*. This poundage of copper is used principally in alloy form in 4,917,700 pounds of bronze and brass wire and pulp screens, in 2,120,000 pounds of bronze castings and bar stock, 500,000 pounds of sheet and rod brass, 1,000,000 pounds of brass tubing and 2,240,000 pounds of brass and bronze rollers.

The News says: "Paper making apparatus of the Fourdrinier type is probably the largest, heaviest and most costly single machine unit to be found in any manufacturing industry and probably embodies in its operating parts more copper and copper alloys than any other single machine unit.

"Approximately 200 miles of single strand bronze wire enter into the screen used on an average Fourdrinier machine, and the screens on the total number of these machines now in use in the country's papermaking industry, contain approximately 220,000 miles of bronze wire.

"If all the wire screens used in one year in papermaking were combined into a single screen, it would cover an area of 8,720,000 square feet, or a space which would contain 2,907,000 newspaper pages placed side by side and end to end."

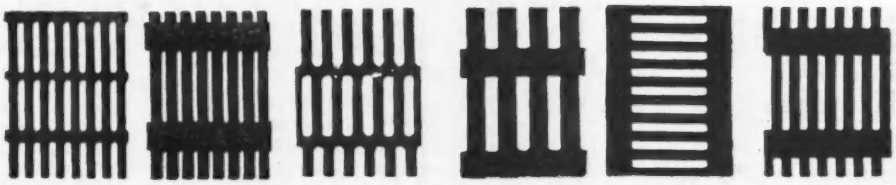
Crown-Willamette Lets Contract for Mill

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., May 4, 1925.—A. Guthrie & Co., Sherlock building, have the contract for the new $200,000 mill "A" to be built for the Crown-Willamette Paper Company at West Linn, Oregon. The building will be of reinforced concrete construction, four stories high at one end and one story at the other with dimensions approximately 200 x 200.

PERFORATED METALS

All sizes and shapes of Holes



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For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

The Harrington & King Perforating Company

5652 Fillmore St., Chicago, Ill., U. S. A. New York Office, 114 Liberty St.

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FOR DEWATERING PULP

ADVANTAGES

1. AUTOMATIC—requiring a minimum of labor to operate.
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4. HEAVY CONSTRUCTION—hence requiring a minimum of repairs.

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Over forty years' experience in the clay industry has naturally resulted in the adoption of the most scientific methods and practices.

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for Papermakers

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Write for prices and particulars

Athens Implement & Manufacturing Co.

ATHENS, WIS.

Market Quotations

Quoted by Hepburn & Co., No. 74 Broadway, N. Y. City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	OFFERED
Abitibi Power and Paper, Gen. 6s 1940	99	102*
Advance Bag and Paper, 7s 1943	98	100*
Aroostook Pulp and Paper, 6s 1925	99	...
Bastrop Pulp and Paper, 7½s 1932	104	108*
Brompton Pulp and Paper, 6s 1927	93	95
Beaver Board, 8s 1933	87	89
Bedford Pulp and Paper, 6½s 1942	98	...
Berkshire Hills Paper Co., 8s 1941	...	80
Beaver Board, N. Y. Curb, 8s 1933	93	95
Beaver Products Corp., 7½s 1942	102	104
Belgo Canadian Paper, 6s 1943	99	100
Brown Paper Co., 8s 1931	102	105*
Berlin Mills, 5s 1931	99	...
Bryant Paper Co., 6s 1942	98	101
Brown Company Serial, 6s 1925-43	97	100
Central Paper, 6½s 1925-42	90	95
Cape Breton Pulp and Paper, 6s 1932	98	102
Carthage Sulphite Pulp and Paper, 8s 1941	40	50
Champion Coated Paper Co., 6s 1924-34	...	102
Champion Fibre Co. Notes, 8s 1930	101	...
Cherry River Paper, 5s 1929	97	100*
Chicoutimi Pulp Co., 6s 1943	63	...
Donnaconna Paper Co., Ltd., 6s 1940	98	100
Eddy Paper, 7s 1931	96	...
Eagle Paper, 6½s 1932	96	100
Escanaba Paper, 6s 1933	84	88
Fox River Paper, 7s 1931	98	102
Fort Orange Paper Co, 7s 1942	95	99
Eddy Paper Co., 7½s 1931	94	98
Gilbert Paper Co., 7s 1927	96	...
Gilbert Paper Co., 6½s 1923-29	101	102*
Hammermill Paper Co., 6s 1930-39	98	...
Hercule Corp'n, 8s 1936	98	101
Hummell, Ross Fibre Corp., 7s 1925	90	...
Jessup & Moore Paper Co., 6s 1939	90	97
Kenmore Pulp and Paper Co., 6s 1937	89	...
Lake Superior Pulp and Paper, 6s 1941	105	...
Mattagami Pulp and Paper, 6s 1937	90	...
Marinette & Menominee, 7½s 1936	103	105
Mengel Company, 7s 1934	100	103
National Paper and Type, 6s 1947	96	99*
Oswego Falls Corp., 8s 1942	101	103*
Orono Pulp and Paper, 5s 1941	93	96*
Orono Pulp and Paper, 6s 1943	97	100*
Oxford Paper Co., 6s 1947	99	...
Parsons Pulp & Lumber 1st 7s 1928	95	...
Paterson Parchment Paper, 5½s 1927-28	98	100
Paterson Parchment, 6s 1938	97	99
Parker, Young Co., 6½s 1944	92	96
Price Bros. & Co., Ltd., 6s 1943	99	101
Provincial Paper Mills, Ltd., 6s 1940	97	...
Riordon Co., Series A, 8s 1940	108	110
Riordan Paper, 6s 1924	91	94
Riordan Pulp and Paper, Ltd., 6s, 1929	28	30
River Raisin Paper, 8s 1936	104	106
St. Regis Paper, 6½s, 1929-35	97	102
Smith (Howard) Paper Mills, 7s 1941	93	95
Smith (Howard) Paper Mills, 6s 1934	94	...
St. Croix Paper, 5s 1923-37	95	...
Stevens & Thomson Paper, 6s 1942	88	92
Spanish River Pulp and Paper, 6s 1931	105	108
Spanish River Pulp and Paper, Gen 8s 1941	106	109
Ticonderoga Pulp and Paper Co., 6s, 1940	91	95
Ticonderoga Pulp & Paper 1-5, 1930	88	93
Whittaker Paper, 1st 7s 1942	95	...
Watab Paper Co., 6½s 1942	100	103*
Waterway Paper Products, 7s 1924-27	95	100
Wayagamack Pulp and Paper, Ltd., 6s 1951	87	90

STOCKS	BID	ASKED
Abitibi Power and Paper, Com	65	67
Abitibi Power and Paper, Pfd	106	115*
Advance Bag and Paper, Com	8	12*
Advance Bag and Paper, Pfd	70	75*
Beaver Board, Com	5	7
Beaver Board, Pfd	38	41
Bryant Paper, Cap	12	...
Bryant Paper, Pfd	9	...
Brompton Pulp and Paper, Cap	24	26
Chicago Mill & Lumber Co., Com	63	...
Chicago Mill & Lumber Co., Pfd	98	104
Crown Williamette, Com	93	98*
Crown Williamette, 7% A, Pfd	98	SW
Donnaconna Paper, Pfd	95	100
Great Northern Paper, Cap	255	265
Howard Smith Paper Co., Com	22	23
Howard Smith Paper Co., Pfd	70	75
Jessup & Moore Paper, Pfd	74	78
International Paper Co., Com	57	58
International Paper Co., Pfd	74	75
Mengel Company, Com	43	45
Mengel Company, Pfd	76	...
Oxford Papers, Com	93	97
Oxford Paper Co., Pfd	98	...
Provincial Paper Co., Com	94	98
Provincial Paper Co., Pfd	99	...
Price Brothers, Cap	...	39
St. Croix Paper	185	215
St. Maurice Paper Co., Cap	83	88
St. Regis Paper Co., Cap	36	40
Smith (Howard) Paper Co., Ltd., Com	25	28
Smith (Howard) Paper Co., Ltd., Pfd	85	87
Spanish River Pulp and Paper, Com	105	107
Spanish River Pulp and Paper, Pfd	115	117
Ticonderoga Pulp and Paper, Cap	145	...
West Virginia Pulp and Paper. Cap	44	47
West Virginia Pulp and Paper, Pfd	85	100
Whittaker Paper, Com	50	...
Whittaker Paper, Pfd	13	...

* Nominal.

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.50	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.00	@ 4.25
Side Runs	3.25	@ 4.00
Book, Cased—		
S. & S. C.	7.00	@ 9.75
M. F.	6.25	@ 8.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—		
White No. 1	.70	@ .90
Colored	1.00	@ 2.00
White No. 2	.70	@ .80
Anti-Tarnish	1.25	@ 2.50
Kraft	.85	@ .95
Manila	.70	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	4.50	@ 4.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.25	@ 9.50
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 6.00
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.50	@ 2.75
S. Screening	3.00	@ 3.50
Card Middler	4.00	@ 5.00
Boards—per ton—		
News	47.50	@50.50
Straw	57.00	@60.00
Chip	50.00	@52.50
Binders' Boards	72.50	@77.50
Sgl. Mla. Ll. Chip	60.00	@62.50
Wood Pulp	70.00	@75.00
Container	62.50	@67.50
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	33.00	@37.00

(F. o. b. Mill)

No. 1 Domestic	28.00	@32.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.75	@ 4.50
Easy Bleaching	2.90	@ 3.25
No. 1 strong unbleached	2.75	@ 3.25
No. 2 strong unbleached	2.45	@ 2.80
No. 1 Kraft	2.90	@ 3.00
Sulphate—		
Bleached	3.75	@ 3.95

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.75	@ 4.50
Easy Bleaching Sulphite	2.90	@ 3.25
News Sulphite	2.45	@ 2.75
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	2.70	@ 3.25
Soda Bleached	4.00	@ 4.25

Domestic Rags

New Rags

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	14.50	@15.25
New White, No. 2	8.00	@10.00
Silesias No. 1	10.50	@11.50
New Unbleached	14.00	@15.00
Washables	6.50	@ 9.25
Fancy	975	@10.25
Blue Overall	10.25	@11.25
New Blue Prints	7.50	@ 8.50
New Soft Blacks	5.75	@ 6.25
Mixed Khaki Cuttings	5.75	@ 6.50
Pink Corset Cuttings	10.50	@11.00
Pink Muslin	10.25	@10.75
New Light Seconds	3.25	@ 3.50
O. D. Khaki Cuttings	6.50	@ 7.50
Men's Corduroy	6.25	@ 6.75
New Mixed Blacks	4.00	@ 5.00

Old Rags

White, No. 1—		
Repacked	8.00	@ 9.00
Miscellaneous	6.50	@ 7.00
White, No. 2—		
Repacked	4.75	@ 5.25
Miscellaneous	4.00	@ 4.50
St. Soiled, White	3.00	@ 3.50
Thirds and Blues—		
Repacked	4.00	@ 4.25
Miscellaneous	3.25	@ 3.50
Black Stockings	4.00	@ 4.50
Roofing Rags—		
Cloth Strippings	3.15	@ 3.25
No. 1	3.15	@ 3.25
No. 2	2.85	@ 3.05
No. 3	2.00	@ 2.25
No. 4	2.75	@ 2.85
No. 5A	1.80	@ 1.50

Foreign Rags

New Light Silesias	9.50	@10.50
Light Flannelettes	11.00	@12.00
Unbl'ched Cottons	14.00	@15.00
New White Cuttings	14.00	@15.00
New Light Oxfords	10.00	@11.00
New Light Prints	9.00	@10.00
New Mixed Cuttings	4.25	@ 4.75
New Dark Cuttings	3.75	@ 4.25
No. 1 White Linens	10.25	@11.25
No. 2 White Linens	7.50	@ 8.50
No. 3 White Linens	6.25	@ 6.75
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.25	@ 4.75
Ord. Light Prints	3.75	@ 4.25
Med. Light Prints	3.75	@ 4.25
Dutch Blue Cottons	4.00	@ 4.50
Ger. Blue Cottons	4.00	@ 4.25
Ger. Blue Linens	4.25	@ 4.75
Checks and Blues	3.50	@ 3.75
Linsay Garments	2.35	@ 2.45
Dark Cottons	2.25	@ 2.35
Shoppery	2.15	@ 2.25
French Blues	4.00	@ 4.50

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—		
Foreign	3.10	@ 3.25
Domestic	3.15	@ 3.25
Wool Tares, light	2.60	@ 2.70
Wool, Tares, heavy	2.70	@ 2.80
Bright, Bagging	2.55	@ 2.65
Mixed Bagging	2.30	@ 2.40
Sound Bagging	2.10	@ 2.20
Roofing Bagging	1.60	@ 1.70
Manila Rope—		
Foreign	6.25	@ 6.75
Domestic	6.75	@ 7.25
New Bu. Cut	3.50	@ 4.00
Hessian Jute Threads—		
Foreign	4.00	@ 4.25
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.60	@ 3.90
Hard, White, No. 2	3.25	@ 3.50
Soft, White, No. 1	2.90	@ 3.15
Flat Stock—		
Stitchless	1.45	@ 1.55
Overissue Mag	1.45	@ 1.55
Solid Flat Book	1.40	@ 1.50
Crumpled No. 1	1.25	@ 1.35
Solid Book Ledger	1.80	@ 1.90
Ledger Stock	1.60	@ 1.70
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.45	@ 2.60
New Cut. No. 1	1.75	@ 2.00
Extra No. 1 old	1.40	@ 1.50
Print	1.20	@ 1.30
Container Board	.70	@ .90
Bogus Wrapper	1.00	@ 1.10
Old Krafts Machine compressed bales	2.05	@ 2.15
News—		
No. 1 White News	1.95	@ 2.10
Strictly Overissue	1.05	@ 1.15
Strictly Folded	.95	@ 1.05
No. 1 Mixed Paper	.65	@ .75
Common Paper	.45	@ .55

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.43	@ .48
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 Basis	.56	@ .61

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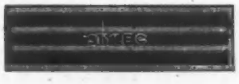
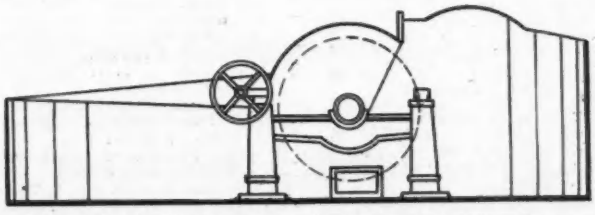


We Can Please You



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MORE STOCK AT LESS POWER
BETTER PAPER AT LOWER COST
LARGER PROFITS WHEN WATER IS LOW

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Buildings, improvements, Paper Machines rebuilt, New Grades of Paper Made, Power Plants, complete mills, old mills re-designed for larger profits.

Finished Jute—			
Dark, 18 basis...	.30	@	.31
Light, 18 basis...	.28	@	.30
Jute Wrapping, 3-6 Ply—			
No. 1	.20	@	.23
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger.	.15	@	.17
Fine Tube Yarn—			
5-ply and larger.	.20	@	.28
4-ply	.21	@	.24
3-ply	.22	@	.25
Unfinished India—			
Basis	.14	@	.15
Paper Makers' Twine			
Balls 12	@	.13	
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.20	@	.40
Amer. Hemp, 6....	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis.....	.14	@	.16
No. 2 Basis.....	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

CHICAGO

Paper

F. o. b. Mill

All Rag Bond.....	35	@	40
No. 1. Rag Bon..	25	@	35
No. 2 Rag Bond..	14	@	25
Water Marked Sul-Phite	9	@	12
Sulphite Bond.....	7	@	10¼
Sulphite Ledger ...	9½	@	12
Superfine Writing..	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book..	5¾	@	7½
No. 1 S. & S. C. Book	6½	@	7¾
Coated Book	8	@	10
Coated Label	8	@	10
News—Roll, mill...	3½	@	4¼
News—Sheets, mill.	3¾	@	4¾
No. 1 Manila.....	4½	@	5½
No. 1 Fibre.....	4½	@	5¼
No. 2 Manila.....	3¾	@	4¼
Butchers' Manila...	4	@	4½
No. 1 Kraft.....	5¾	@	6¼
No. 2 Kraft.....	4.50	@	5.00
Wood Tag Boards..	4¾	@	6
Sulphite Screenings.	3.00	@	3.25
Manila Tissue, 24x36 sheet	7½	@	8
White Tissue, 20x30 sheet	7	@	7¼
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip 45.00		@47.50	
Solid News 47.50		@50.00	
Manila Line Chip.57.50		@60.00	
Container Lined—			
(Delivered Central Territory)			
85 Test	—	@75.00	
100 Test	—	@80.00	

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.15	@	3.25
White Envel. Cuttings.....	3.15	@	3.25
No. 1 Soft Shav.	2.65	@	2.75
No. 1 Mixed.....	1.45	@	1.50
No. 2 Mixed.....	1.15	@	1.20
Ledger and Writings	1.50	@	1.55
Solid Books	1.40	@	1.45
No. 1 Light Books.	1.00	@	1.05
Blanks	1.90	@	1.95
Kraft	2.05	@	2.10
New Kraft Cuts.	2.30	@	2.35
Manila Envelope Cuttings.....	2.40	@	2.50
Ex. No. 1 Manila..	2.00	@	2.10
Print Manila	.90	@	.95
Folded News (over-issue)	.85	@	.90
Old Newspapers—			
No. 1	.70	@	.75
No. 2	.65	@	.70
Mixed Papers—			
No. 1	.55	@	.60
No. 2	.50	@	.55
Straw Clippings....	.75	@	.80
Binders' Clippings..	—	@	.70
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	30.00	@35.00	
No. 2	28.00	@33.00	
No. 3	26.00	@31.00	
No. 4	20.00	@25.00	

BOSTON

Paper

Ledgers—			
Sulphite	.08½	@	.18
Rag content	.18	@	.36½
All Rag	.38	@	.50
Bonds—			
Sulphite	.08½	@	.12
Rag Content.....	.17	@	.45
All Rag	.36½	@	.51
Writings	.08½	@	.20
Superfines	.22	@	.50
News	.04	@	.06½
Book, M. F.....	.07	@	.12
Book, Super.....	.08½	@	.13
Book, Coated.....	.09	@	.20
Coated Litho.....	.09½	@	.15
Label	.09½	@	.15
Jute Manila No. 1.	.11	@	.12
Manila, Sul. No. 1.	.05	@	.05
Manila, Sul. No. 2.	.03¾	@	.04¼
No. 1 Kraft	.06¼	@	.06½
No. 2 Kraft	.05¾	@	.05½
Common Bogus	.03½	@	.04
Straw Board	—	@50.00	
News Board	—	@52.50	
Chip Board	—	@50.00	
Single Manila Pulp lined board.....60.00		@65.00	
Single White, patent coated board 77.50		@85.00	
Wood Pulp Board..80.00		@85.00	
Binder Boards 75.00		@85.00	
Tarred Felts—			
Regular 61.00		@63.00	
Slaters 66.00		@68.00	
Best Tarred, 1 Ply, roll	1.50	@	1.60
Best Tarred, 2 Ply, roll	1.70	@	1.80
Best Tarred, 3 Ply, roll	2.00	@	2.10

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	4.25
White Blank News.	1.75	@	2.00
Manila Env. Cuttings.....	2.80	@	3.00
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White..	.04½	@	—
No. 2 Soft White..	.03¼	@	—
No. 1 Mixed.....	1.60	@	1.75
No. 2 Mixed.....	1.25	@	1.50
Solid Ledger Stock.	2.00	@	2.25
Writing Paper	—	@	1.70
No. 1 Books, Heavy	1.75	@	1.85
No. 1 Books, Light.	—	@	1.50
No. 1 New Manila.	2.50	@	2.60
No. 1 Old Manila.	1.75	@	2.00
Print Manila	1.05	@	1.20
Old Kraft	2.00	@	2.25
Overissue News ...	1.00	@	1.20
Old Newspapers ...	.70	@	.75
No. 1 Mixed Paper.	.60	@	.65
Box Board, Chip...	.60	@	.65

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	—	@	3.00
Domestic	—	@	3¼
Manila Rope	6.00	@	6.50
Mixed Rope	1.50	@	2½
Scrap burlaps....	—	@	3.00
Wool Tares, heavy.	—	@	3.00
Mixed Strings...	—	@	2.25
New Burlap Cuttings	—	@	3.75

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.15½	@	.15
Silesias, No. 1..	.11	@	—
New Unbleached.	.14¼	@	.15
Washable	.07¾	@	.08
Fancy	.10½	@	—
Cottons—According to Grades—Blue—			
Blue overalls....	.12¼	@	—
New Black, soft...	.07	@	—
Khaki Cuttings....	.07	@	—
Corduroy	.04	@	.04½
New Canvas.....	.12	@	.12½

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1.....10.00		@	—
Repacked	9.50	@	—
Miscellaneous	8.50	@	—
White No. 2—			
Repacked	6.50	@	—
Miscellaneous ...	5.25	@	—
Thirds and Blues—			
Repacked	5.00	@	—
Miscellaneous ...	3.50	@	—
Roofing Stock—			
No. 1.....	3.90	@	—
No. 2.....	3.00	@	—
No. 3.....	2.50	@	—
No. 4.....	2.00	@	—

PHILADELPHIA

Paper

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2.....	.16	@	.25
Fine, No. 3.....	.12	@	.20
Book, M. F.....	.06	@	.07
Book, S. S. & C..	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph..	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila.	.09½	@	
Manila Sul., No. 1.	.04½	@	.06
Manila No. 2.....	.04	@	.04½
No. 2 Kraft.....	.05	@	.05½
No. 1 Kraft.....	.06¼	@	
Common Bogus.....	.02¾	@	—
Straw Board.....55.00		@60.00	
News Board 52.50		@	—
Chip Board 52.50		@	—
Wood Pulp Board.. 4.50 (Carload Lots)		@	5.00
Binder Boards—			
Per ton 75.00		@80.00	
Carload lots 65.00		@70.00	
Tarred Felts—			
Regular 61.00		@63.00	
Slaters 66.00		@68.00	
Best Tarred, 1-ply (per roll)	1.70	@	1.80
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply.	2.00	@	2.10

Bagging

F. o. b. Phila.

Gunny, No. 1—			
Foreign	3.00	@	3.25
Domestic	3.00	@	3.25
Manila Rope.....	6.25	@	6.50
Sisal Rope	2.50	@	—
Mixed Rope	1.50	@	1.75
Scrap Burlaps....	2.25	@	2.50
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings...	1.25	@	—
No. 1, New Lt. Burlap	3.50	@	3.75
New Burlap Cuttings	3.75	@	—

Old Papers

F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.65	@	3.70
No. 2 Hard White	3.25	@	3.40
No. 1 Soft White	2.70	@	2.80
No. 2 Soft White	1.80	@	2.00
No. 1 Mixed.....	—	@	1.50
No. 2 Mixed.....	1.25	@	1.30
Solid Ledger Stock.	1.75	@	1.90
Writing Paper.....	1.60	@	1.65
No. 1 Books, heavy	1.35	@	1.40
No. 2 Books, light.	1.15	@	1.25
No. 1 New Manila.	2.40	@	2.50
No. 1 Old Manila..	1.50	@	1.75
Container Manila ..	.85	@	.90
Old Kraft	2.00	@	2.10
Over issue News...	.90	@	.95
Old Newspaper....	.60	@	.65
No. 1 Mixed Paped	.50	@	.55
Common Paper.....	.30	@	.35
Straw Board, Chip.	.60	@	.65
Binders Bd., Chip..	.60	@	.65

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.13½	@	.14
New White, No. 2	.06½	@	—
Silesias, No. 1...	.10½	@	.11
New Unbleached.	.14	@	.14½
Washable	.07¾	@	.08¼
Fancy	.09½	@	.10
Cottons—according to grades—			
Blue Overall....	.11	@	.11½
New Blue	.04	@	.04¼
New Black Soft.	.06	@	.06¾
New Light Seconds	.03½	@	.03¾
Khaki Cuttings..	.06½	@	.07
Corduroy	.04	@	.04½
New Canvas	.08¾	@	.09
New Black Mixed	.05	@	.05¼

Old

White, No. 1—			
Repacked	7.00	@	7.25
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05½	@	.05¾
Miscellaneous ...	.05	@	.05¼
Thirds and Blues—			
Repacked	3.75	@	4.00
Miscellaneous	3.15	@	3.25
Black Stockings..	4.25	@	4.50
Roofing Stock—			
No. 1	2.00	@	2.15
No. 2	1.90	@	2.00
No. 3	1.25	@	1.35
No. 4	1.10	@	1.20
No. 5A	1.10	@	1.15
B	1.05	@	1.10
C	1.00	@	1.05

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11½	@	.12½
Light tinted.....	.12½	@	.13½
Dark tinted.....	.14	@	.15
Ledgers (sulphite)..	—	@	.13
Ledgers No. 1.....	34	@	
Ledgers No. 2.....	26	@	
Writing	.09½	@	
Writing S. C.....	.10	@	
News f. o. b. Mills—			
Rolls (carloads)..	3.65	@	—
Sheets (carloads).	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	8.25	@	—
No. 2 M. F. (carloads)	7.95	@	—
No. 3 M. F. (carloads)	7.25	@	—
No. 1 S. C. (carloads	8.75	@	—
No. 2 S. C. (carloads)	8.25	@	—
No. 3 S. C. (carloads)	7.75	@	—
No. 1 Coated and litho 14.50		@	—
No. 2 Coated and litho 13.50		@	—
No. 3 Coated and litho 12.75		@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rap	5.25	@	—
"P" Manila	5.50	@	—
No. 1 Manila...	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.....	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood.....	30.00	@35.00	
Sulphite easy bleaching	60.00	@65.00	
Sulphite news grade	55.00	@60.00	
Sulphite, bleached.	80.00	@	
Sulphate	62.50	@65.00	

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut..	3.60	@	—
Soft White Book shavings	3.25	@	—
White Blk, News.	1.70	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers....	1.40	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas..	1.00	@	—
Kraft	2.15	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Folded News....	.80	@	—
No. 1 Mixed Papers	.60	@	—
Domestic Rags—			
Price to mills, f. o. b. Toronto		Per lb.	
No. 1 White shirt cuttings	.15	@	.15¼
No. 2 White shirt cuttings	.08	@	.08½
Fancy shirt cuttings	.09¾	@	.10
No. 1 Old Whites..	—	@	—
Third and blues....	.05½	@	.05¾

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David Weber & Co. to Build Large Box Plant

PHILADELPHIA, Pa., May 4, 1925.—A new manufacturing plant, including offices, warehouses, boiler room and machine shop is to be erected for David Weber & Co., corrugated paper box manufacturers, on the northeast side of Tioga Street extending from Richmond to Salmon street. The lot has a frontage of 209 feet on Tioga street and 491 feet on Richmond and Salmon streets. The new plant will be erected in accordance with drawings and specifications prepared by The Ballinger Company, architects and engineers, Philadelphia and New York, and will have an area of 101,365 square feet. It will be one story in height with roof of sawtooth skylight construction to obtain the benefit of north light without glare from direct sunlight.

Convenient Location

The offices will be located at the corner of Richmond and Tioga streets and the manufacturing portion will extend along Richmond street. The warehouse will be along Salmon street, with a loading platform accommodating six automobile trucks at the Tioga street end. A railroad siding of the Pennsylvania Railroad Company will enter the building along the Richmond street side and extend the entire length of the building, thus permitting convenient unloading of the heavy roll paper which forms the raw product for the manufacture of corrugated paper board. The boiler room will be located at the northeast corner of the building along Salmon street and be so arranged that coal cars will enter it on a trestle and dump coal directly to the boiler room floor in front of the boilers thus saving the cost of rehandling.

The building will have walls of rough texture face brick with architectural terra cotta trimmings. The columns and roof construction will be of heavy timber construction. The floors will be of cement hardened to prevent wear and dusting, and the roof covering will be of tarred felt and slag or light colored pebbles. The steel sash with ventilating section will be provided for the windows and for the sawtooth skylights.

Modern Equipment

Modern plumbing, heating and electrical equipment will be provided including a wet pipe automatic sprinkler fire protection system. Two high pressure boilers will be installed in the boiler room, draft for which will be supplied by a radial brick chimney 42 inches in diameter and 125 feet high. Provision is made in the equipment for labor saving in the handling of the heavy paper rolls by means of electric transfer cranes, hoists and a monorail system.

A large steel tank has been provided of sufficient capacity to receive in carload the silicate of soda, which is the binding agent used in the manufacture of corrugated paper board. A complete piping and pumping system for the circulation of the silicate of soda to the corrugated paper machines will also be installed.

Company Established in 1893

David Weber & Co., who are the owners of the new building, are now located at the Northwest corner of 5th and Locust streets. This company, which was established in 1893 and was the first to engage in the manufacture of corrugated paper board in the City of Philadelphia, is now one of the foremost manufacturers of the product in this section of the country. Its present premises have been leased to the United States Rubber Company who will occupy them when vacated by the present owners upon the completion of their new building, September 1, 1925.

Tentative Standards for Grocery Bags

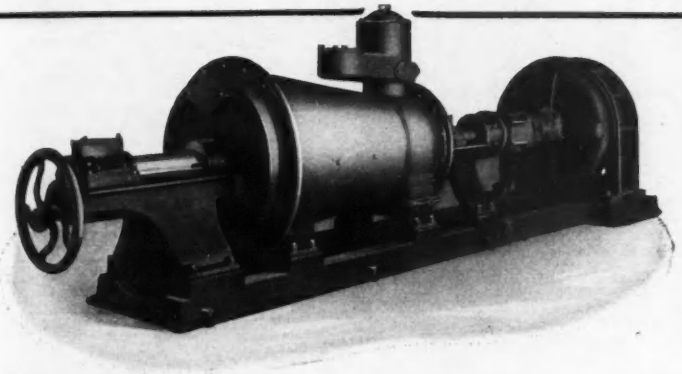
[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., April 29, 1925.—After having developed a tentative program for reducing the wide variety of grocery paper bag sizes, which is to be submitted for the adoption by a general conference in May of manufacturers, distributors and users, the Grocery Bag Manufacturers' Association has named a special committee to present for the approval of the United States Bureau of Standards its tentative standards for the cubical contents of grocery paper bags. Announcement of this step was made today by the Division of Simplified Practice which has been co-operating with the industry in the initial steps of a simplification program.

It was further revealed that a movement is on foot by the Association to develop a standard packing method for grocery paper bags in order that there may be uniformity in quantity and in packing, for the joint benefit of manufacturer, wholesaler, retailer and user. This matter is under consideration by the Grocery Bag Manufacturers' Service Bureau, whose executive secretary, W. E. Moser, is also secretary of the Simplification Committee.

Other members of the committee which is to visit the Bureau of Standards include C. R. McMillen of the Union Bag and Paper Corporation, New York, A. A. McIlvain of the Columbia Paper Bag Company, Baltimore, and C. B. Sanders, secretary of the Union Bag and Paper Corporation, New York.

BOX FACTORY TO BE BUILT BY DAVID WEBER & CO.



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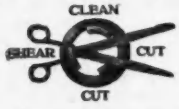
Camden 

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RONDAC No. 206,342. Adirondack Tissue Paper Co., Utica, N. Y. For toilet paper, paper towels, and paper napkins.

UNIVERSAL PAPER COMPANY ECONOMY KRAFT the words "economy Kraft" are disclaimed apart from the mark as shown—No. 207,-421. Universal Paper Company, New York City. For wrapping paper in bulk.

A.P.W. No. 200,078. Albany Perforated Wrapping Paper Company, Albany, N. Y. For toilet paper.

PURE WHITE with fanciful design. No. 200,079. Albany Perforated Wrapping Paper Company, Albany, N. Y. For toilet paper.

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BOB WHITE No. 200,082. Albany Perforated Wrapping Paper Company, Albany, N. Y. For toilet paper.

KALIX No. 201,665. Kalix Cup Company, Boston, Mass. For paper drinking cups and dispensers therefor.

PERIDOT No. 209,437. Herbert Stokes, New York City. For toilet paper, shelf paper, paper towels, paper napkins, and waxed paper.

Paper Simplification Statement

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 6, 1925.—E. W. McCullough, manager of the Department of Manufacture of the Chamber of Commerce of the United States is sending out a communication in connection with simplification and fair trade practice in the various industries. He quotes verbatim expressions from manufacturers of various kinds. The quotation from the paper industry follows:

"In the paper business, as with all other commodities there is a real desire to place the industry upon a high plane, and to eliminate piratical or unfair practices. Keen competition, creative and ambitious salesmen did much in the past to foster the practices that became too well introduced and difficult to eradicate. Difficult to eradicate because the economics of the situation were overlooked, and because the adoption and application of even trade practices were frowned upon by some government officials, and fear of prosecution for violating this, that or the other laws, as interpreted by them, kept the desires to do so dormant—and the vicious practices of cut weights, short count, and other misrepresentation continued and grew.

"Simplification and standardization as being studied today is largely the result of the war lessons from which was learned the economies that would result and the benefits to the manufacturer, merchant, converter and consumer. In the manufacture of fine papers, such as bond, linens, ledgers, and writings, there has been established standard or substance weights based upon a standard of basic size. This trade practice has largely if not completely eliminated the pirate and everybody is benefited thereby. The same method has been applied to other lines, such as book paper, cover, offset and envelope paper. These practices are applied not only to the standard weights for a basic size, but too all odd sizes, as well."

Calls Simplification Conference

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 6, 1925.—A. E. Foote of the Simplified Practice Division of the Department of Commerce is sending out a communication calling a conference to be held in this city on May 26 regarding the simplification of grocery bags. The conference is to be attended by manufacturers, distributers, and users of their products, together with bag machinery manufacturers.

The Grocery bag manufacturers as a result of several meetings, have developed a simplification recommendation which proposes an elimination of 28.6 per cent of the varieties and sizes of self-opening bags, and 20 per cent of square and flat bags. In order that this recommendation may be adopted if approved by the industry, the Grocery Bag Simplified Practice Committee has requested the Simplified Practice Division to call this final conference. In sending out his invitation to attend this conference, Mr. Foote says in part:

"The success of this meeting will depend upon a full and representative attendance of all four groups—manufacturers, distributers, users and bag machinery manufacturers; and we trust that we may count upon your presence.

"We desire to complete plans which will make this conference of real constructive value to your industry and will appreciate the designation of your representatives who may be expected to attend."

Invitation to Convention

The following special invitation is being sent out to mill managers and superintendents to attend the sixth annual convention of the American Pulp and Paper Mill Superintendents' Association to be held at Niagara Falls, June 4, 5 and 6.

"Your presence is most earnestly requested at the Convention of the American Pulp and Paper Mill Superintendents' Association in Niagara Falls, N. Y., on June 4th, 5th and 6th.

"Here is a convention, amidst the inspiring beauty of one of Nature's marvels, which promises to be one of the greatest in the history of the Association. The program, of both speakers and entertainment, is worthy of your attendance—in fact you can't afford to miss it.

"The Association extends you a hearty welcome, and is particularly anxious to have as many Superintendents and Managers attend as possible, whether they are members or not. There is much we can do in common, to promote and advance our industry, and as this convention is so centrally located, it affords an excellent opportunity to work together.

"Make your plans now—drop a line to Harry Brennan, Secy., Cliff Paper Company, Niagara Falls, N. Y.—he will be glad to make reservations for you. Don't pass up this opportunity—you owe it to yourself, and your mill to attend."

Will Not Sell American Mills

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., May 5, 1925.—Tax Collector James M. Kennedy said today that it was not the plan of the city of Holyoke to sell the mills of the American Writing Paper Company if the court allowed them to take possession for back taxes, but to merely take possession to protect the city and allow the American Writing Paper Company to operate them.

"You see it would hardly do to try and dispose of them for two reasons," he said. "In the first place it would not be fair to the company as the company in the case of property seized for non-payment of taxes has the right to buy back the property by paying the taxes due anytime in two years from the date of the sale. Now no one is going to pay anything like full value for property that can be bought back in any such manner as that.

"Furthermore, the city is not desirous of penalizing the American Writing Paper Company, but merely to protect its interests."

President Sidney L. Willson said this week that plans for the reorganization of the Company had nearly been perfected and that the disposal of the mills of the Company in Ohio was expected soon.

Business, however continues light at the mills and there is no large business being done at any of the Holyoke mills at the present time.